

This summer, we had the pleasure of welcoming our most diverse ESAP class yet! Whether they hailed from across town or across the globe, ESAP scholars made Philadelphia their home for three activity-filled weeks in July. The ESAP staff welcomed 220 students to Penn's campus, and our scholars didn't waste any time getting to work: lab reports, lectures, laser cutting and lunch talks, oh my! Though the coursework was challenging, there was no shortage of fun. From bubble tea runs to Six Flags trips, Field Day to Talent Shows, a great time was had by all- and we've got our amazing RTAs to thank for that!

We hope we achieved our goal of providing you with an enriching and engaging program, in addition to a unique academic and social experience. As you continue on in your high school careers, we hope that you continue to grow in the knowledge you gained during your time here, and that the memories formed at Penn will continue to hold a soft spot in your heart. As you all stand poised to make your mark on history, the ESAP team looks forward to the change our alumni WILL undoubtedly create!



“Others dream of things that were, and ask ‘Why?’ I dream of things that never were, and ask ‘Why not?’”

CARDINAL SAINT-SAENS

### CLASS OF 2019 STATS

#### GENDER

♂ 55%

♀ 45%

#### HOMELAND

🇺🇸 54%

🌍 46%





## Erica Feehery

*Biotechnology 2019*

I am a high school junior at The Episcopal Academy involved in many STEM organizations, including FIRST Robotics team 2095, and 6 science and math clubs. I also am a Lilley fellow performing a study on technology in early autism education and will be interning at the Office of Naval Research this summer.

## Justin Liu

*Computer Graphics 2019*

I've joined the TSA at my school and I'm part of the video game design team.

IG: @quinbalance

## Ruhee Rajwani

*Computer Graphics 2019*

I am currently trying to grow our school's computer science club. A few issues the club is facing are clearing any negative connotations that come with computer science (like it is only sitting in front of a computer and typing all day), creating engaging events and activities, and ensuring that all groups of people regardless of race, gender, and ethnicity feel welcomed into the club. I am currently the only female on the club's board, which works on planning club meetings and activities. Our first meeting had a small turn out, but it was a good starting point! As time passes, we hope to involve more girls and people of diverse backgrounds into the club. Although there is a lot of work ahead I am excited for the club to get up and running. If you have a successful computer science club at your school and can offer tips or have advice for events or anything at all, please email me!

ruhee.rajwani@gmail.com

## Haixin Li

*Computer Science 2019*

I am a senior in WHBC of Wuhan Foreign Languages School and busy applying to universities (of course ED UPenn). Early of this year, I just finished my internship in DGene Inc., which is an amazing computer vision technology company, and worked on 3D human model reconstruction project.

lihaixin2020@163.com

## Joseph Chen

*Nanotechnology 2019*



I'm happy to say that I've been thriving lately! I'm interning for a fin-tech startup that I'm really excited about, and also doing a lot on campus. I'm a current junior at Phillips Exeter Academy, and the co-head of Exeter Business Club, Social Innovative Thinking for Entrepreneurs, and more! I'm thrilled to host the speakers from my ESAP course, such as Anup Singh, as guest speakers on my campus! In addition, several friends and I are designing and implementing a dorm-composting system, in hopeful collaboration with several companies. This coming October, after half a year of organization and coordination, my friend Tien and I are launching an entrepreneurship program and pitch competition, in collaboration with Brown University, with other teams across New England!

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IG: @jo.sephhiee

## Reid Fleishman

*Nanotechnology 2019*



As a Junior, I am currently very involved in my First FRC Robotics Team, Rebel Robotics Team #2638. I've been working very hard with a few other older members to increase the numbers of new members on the team. It's been a big success, as we have about 80 new members! Right now I am also planning on making a parts/tools reference guide app for our team. The new members will help make this app by having each one take pictures/do research on a part/tool assigned to them. Those pictures and a brief description that they write will be featured in the app. Not only will this help our new members learn about the parts/tools, but they also will contribute to something in which their work will be displayed to the world. I'm so excited to pursue this opportunity and am looking forward to the Build Season!

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## Jacques Hughes

*Nanotechnology 2019*

After departing the ESAP Nanotechnology program, I began research and exploration in the world of artificial intelligence and computer science at AI4All at Princeton University. As ESAP provided me a research-intensive foundation on future applications in life sciences, medicine, and engineering, my AI research introduced me to high tech diagnostic techniques, technology policy, and ethics to ensure as a future bio-medical engineer I'm aware of any biases in device innovation that prevents access to the highest quality of healthcare to all. My AI research focused on melanoma detection through computer vision technique from smartphone images from users. Our data science indicated individuals would have a more available method in self-diagnosing melanoma. My cohort and I explored dermatoscopic images of skin lesions and developed methods to recognize when melanoma was present and the difficulties in transitioning between controlled and uncontrolled settings.

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Snap: jhughes.6

## Claire Wang

*Nanotechnology 2019*

I'm enjoying my senior life so far. The ESAP experience opened my eyes to the field of engineering and cutting-edge research engineers are doing, strengthening my belief in majoring in engineering in college. To get myself prepared for that, I'm taking courses like AP Physics C, AP Biology and Multivariable my senior year. I am also in a club now that analyzes scientific literature each week to keep pace with the fast-changing technological world. I fell in love with Penn's campus during ESAP, so I am working on my Penn Supplements right now!

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### Gurnoor Viridi

*Networks 2019*

I am currently the President of my school, making a lot of changes in the way things work! I have introduced a new app that I programmed that lets students sign out of their study hall from their mobile devices, changed the lunch for better quality food, and have held a few school-wide events! I have created a new agenda for my 3d printing club in that now students create products and figure out ways to spread them just as I learned in NETS this summer.

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### Cindy Dong

*Robotics 2019*

I'm starting a robotics club in my school and am currently setting the team up with my teachers with my ESAP knowledge.

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### YiMeng Gao

*Robotics 2019*

My college major will probably be mechanical engineering or astrophysics because I'm really interested in aerospace engineering. My school life is not bad, I'm currently preparing for AP exams and a math contest as well as my college applications. Also I'm still in First Robotic Competition this year. If there are any other ESAP alumni who are also taking part in FRC this year, I'm in team 5449 and you're welcome to visit us!!!

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### Pedro Shinzato Chen

*Robotics 2019*

I am currently in 10th grade at Colégio Etapa, in São Paulo, and lately I have been really into coding and doing informatics. I took part in the Brazilian Olympiad of Mathematics, Informatics, Physics and Robotics, and I must say that I had some great results and won some medals! I am going to Rio Grande do Sul to compete in the Latin America Robotics Competition, and I am extremely excited to participate and use all the knowledge I acquired with ESAP ROBO course. I am also applying to Stanford Honors Academies 2020 Program which is going to happen here in Brazil in January. I am thankful for the ESAP program and all the learning experience I acquired and managed to use in my academic and non-academic life, it really helped me a lot.

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### Calix Tang

*Robotics 2019*

Cube  
Robotics  
FBLA  
Math  
4APs  
school

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### Nuotianhong Xu

*Robotics 2019*

I'm in WHBC of Wuhan Foreign Languages School, an international school in Wuhan, China. I'm graduating next summer and planning to major in Mechanical Engineering, and probably minor in economics related studies.

At school, I had been the leader of a FIRST team (FRC 5308) for nearly two years, and I am now starting to mentor the team as an alumnus, which I am really proud of.

I really enjoyed my summer at ESAP - I had a great time with my wonderful RTAs, friends, and the brilliant lecturers Jim, Pat, and of course Professor Yim. Also, with the knowledge about micro-controller development that I learned at ESAP (and of course with the ESP32 MCU that I took away from the lab LOL), I am actually working on cool robotics projects.

[IG: @ricxylc](#)

### Tianqi Chen

*Biotechnology 2018*

I am enlarging my non-profit organization of Music Therapy volunteers for the Dementia and Autism. As the founder and captain, I advocate, motivate and educate the team members to provide their talent and enthusiasm for the patients. Our team members include students from local public and private elementary, middle, and high schools, as well as their parents. I am the only high school student member of NJ Association for Music Therapy (NJAMT). Besides the workshop of NJAMT, I am going to participate in the American Music Therapy Association Annual Conference in November. Our pictures and video could be found at <http://power-ofmusictherapy.org> or Instagram @musictheapyalz.

[IG: @musictheapyalz](#)

### Shivank Joshi

*Biotechnology 2018*

I am a freshman at Carnegie Mellon University studying chemical engineering. I will most likely minor in machine learning.

[IG: @name.1](#)

### Justin Lin

*Biotechnology 2018*

I'm currently a freshman at UC Berkeley, studying Computer Science and Applied Mathematics.

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### Dylan Dugourd

*Computer Graphics 2018*

After an amazing summer at UPenn, I studied Python Programming at the SUNY Stony Brook Institute for Advanced Computational Science. Back at high school this fall, in addition to a busy schedule including AP Calculus BC and AP Physics, I am our Junior Class President and have been playing Varsity Soccer, traveling to the School of Visual Arts to practice figure drawing, and taking Driver's Ed lessons. I am keeping up my computer graphics skills by designing a new video game and pursuing an independent research project with a mentor at SUNY Stony Brook.



**Davide Hallac****Computer Graphics 2018**

It's my Senior Year at Bronx Science and I am applying to college. Last summer, I worked an internship at a video game company in Italy as Junior Beta Tester. This year, I have joined the National Honor Society, and become co-president of the school's Film Production Club. I also published my first video game on itch.io.

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**Yike Han****Computer Graphics 2018**

Currently I am in my second year of IB in the High School Affiliated to Renmin University of China. I think the CGRA program helped me realize that I can actually combine the two things I love so much together more than I had imagined and helped me discover a HUGE interest of mine that I would really love to explore in my future college years and career. This year I have handed my robotics club and graphic design club to younger club members and focused more on my college applications. I am especially focusing on the colleges with an interdisciplinary atmosphere, so wish me luck!

**Qianxin (Carl) Gan****Computer Science 2018**

FRC Chief Engineer, vice-captain, coach, mentor, technician; Currently enrolled in University of California, Berkeley 2023' as an international student, with Electrical Engineering and Computer Sciences major in the college of Engineering. Currently enrolled in a few clubs, about leadership and coding.

[ganqianxin@outlook.com](mailto:ganqianxin@outlook.com)

**Rameen Mahmood****Computer Science 2018**

Amongst the whirlwind of college applications and aptitude tests, I've been able to use the knowledge and experience of ESAP by teaching Python to children at a nearby school. I am also the ambassador for the Pakistan Innovation Foundation for the National STEM School in Pakistan. In addition to this, I have made my way into the Student Council in my school this year, securing the position as President of the Science and Space society, for which I am currently organizing a Science Fair. ESAP has not only added to my academic depth, but has also given me a taste of college life as an undergraduate student. I will always remember it as one of the most rewarding experiences of my life.

**Peicheng Qiu****Computer Science 2018**

It's been a whole year since I graduated from ESAP, and now I am currently studying at Carnegie Mellon as a freshman. Last summer, I worked with a PhD student at UCLA for my first research project on crime categorization and anticipation using Machine Learning models. This year, I join CMU US-China Innovation and Entrepreneurship Association, and are working with tech startups and VCs.

FB: [Peicheng Qiu](#)

IG: [@pqiu\\_](#)

**Matthew Shenkman****Computer Science 2018**

Currently a curriculum deferred student at UPenn in the school of engineering. Most likely majoring in computer science. I'm part of upgrade a video game development club. Many of the Interests deceived and of course the university can be attributed to my time at ESAP.

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**Olina Wu****Computer Science 2018**

I'm currently a year 12 in YKPao School in Shanghai. My extracurricular activities oriented mostly around computer science. I've delved deeper into machine learning since 2018 ESAP and completed more computer science projects (including classifying EEG signals for signs of anxiety, creating computer generated music ext.) I'm also the founder a computer science club in my schools teaching girls computer programming.

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**Le Zhang****Computer Science 2018**

I'm currently in Hangzhou Xuejun High School. My future college major is Computer Science or Computer Engineering. Also, after finishing ESAP, I worked for Girls Who Code Program in China as an instructor. ESAP gave me experience to improve my coding skills.

**Smriti Arumbakkam****Nanotechnology 2018**

I am currently a freshman at Rensselaer Polytechnic Institute (RPI) and am majoring in Chemical Engineering. The ESAP course really helped my understanding of engineering and get a feel of what college would be like.

IG: [@smritio\\_o](#)

**Carlo Colizzi****Nanotechnology 2018**

Last year I started my after-school robotics club and completed an internship at the Italian Institute of Technology, working on the iCub Robot's grasping algorithms. I am currently finishing my second year of IB in Milan and am focused on completing all parts of my application.

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**Simon Danitz****Nanotechnology 2018**

Currently I am a senior in high school. Recently I have expanded upon projects and ideas initially explored in the ESAP program. Last year I developed a project on the relationship between the absorbance of a dye used in a dye sensitized solar cell and the color temperature of light. More recently I worked at a local company designing math workbooks for elementary and middle school kids.

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**Jiaqin Sun****Nanotechnology 2018**

Lynbrook High School, cramming my college app essays. I am a part of FBLA and my school's Conservative Action Association club, a club that spread environmental awareness.

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**Yoonseok Yang**  
*Nanotechnology 2018*

I'm currently continuing my research on developing ordered mesoporous alkali metal catalyst for recycling waste glycerol from bio-diesel manufacturing process. Based on the supple properties I learned from Nanotechnology course about nanomaterials, I'm utilizing mesoporous structures as templates of my catalyst, taking advantage of their vast surface area. I'm trying out different porous materials as templates, and tools I learned to analyze these nanomaterials such as XRD technique is helping me a lot! Moreover, ESAP Nanotech camp evoked my new interest in Dye-Sensitized Solar Cells(DSSCs). I'm hoping to conduct research on DSSCs in the near future. Motivated by ESAP camp, I'm planning to major in Materials Science and Engineering!

**Richard Cheng**  
*Networks 2018*

I'm now a senior in my high school in St. Louis, Missouri, and I'm doing some pretty cool stuff! Last summer, I performed research at the Garcia Center for Polymers at Engineered Interfaces at Stonybrook University--specifically, I investigated ways to optimize scaffolds for tissue engineering. These days, I'm involved in rocketry, band, speech and debate, and DECA, and I'm really enjoying my last year in high school! On the side, I'm creating a combinatorial optimization algorithm for assembling the best virtual soccer team in a video game called PES using machine learning techniques.

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**Jonathan Daniel**  
*Networks 2018*

Currently, I am a Freshman at Clemson University as a member of the National Scholars Program. I am majoring in Computer Science, and am working with the TigerVision club to broadcast the Club Hockey Team's games. Additionally, I compete with the debate team, and am beginning research next Spring on the integration of AI and Athletic Marketing.

IG: [@programmerJD29](#)

[jmdanie@clemson.edu](mailto:jmdanie@clemson.edu)

**Chenming Fan**  
*Networks 2018*

Georgia Tech CS first year student

IG: [@cfan70](#)



**Eugene Mak**  
*Networks 2018*

I'm currently the co-president of our computer science club, and we're working hard at helping people learn to program and foster an interest in computer science. We're also preparing for coding competitions, especially PClassic hosted at UPenn. Additionally I'm the president of our underwater robotics club and a new member of our robotics club. I also have an internship at Drexel where I get to use the MatLab skills I learned from Nets!

**Darrion Chen**  
*Robotics 2018*

Freshmen in Mechanical Engineering at University of Pennsylvania. Past summer internship at Thirdwave Automation, a Bay Area start-up working on automated forklifts. Designed a warning projection system so the automated forklift can project its intended path.

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**Juliana Cui**  
*Robotics 2018*

This year, I am continuing with my FTC robotics team. I am working on designing more custom parts as we enter our second year as a team. I also worked as a software engineering intern this summer at Morningstar, a financial services company in Chicago. I really miss the ESAP experience and my robotics friends (Yvette, Ning, and Alyssa)!

IG: [@juliana\\_cui](#)

**Chen Dai**  
*Robotics 2018*

I founded the Technology and Innovation Club and the maker space at my school last year to share what I learned from ESAP (3d printing, laser cutting, Arduino, etc) with my school with the aim to broaden STEM education in the local community. I also took a greater leadership role in my school's robotics team with my sharpened engineering and teamwork skills. I am a senior now and attending ESAP was a great opportunity for me to learn more about Penn Engineering and confirmed my decision to ED there!

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**Noam Elul**  
*Robotics 2018*

Currently at the University of Pennsylvania, planning on majoring in Computer Engineering  
[elul@seas.upenn.edu](mailto:elul@seas.upenn.edu)





**Siming He***Robotics 2018*

I am doing a project about sign language recognition based on deep learning. In most cases, deaf or mute are unable to even access basic service and product due to communication problems. According to WHO, in 93 counties, 31 countries had no interpreting service, while 30 countries had 20 or fewer qualified interpreters. In order to help them communicating, I designed a sign language translation system based on deep learning is designed, enabling cameras to recognize and translate sign language vocabularies into speech. The translation system, rather than interpreters, is more efficient and reliable in spreading interpreting service to help the 70 million deaf or mute around the world. In this system, OpenPose, a CNN network, is used to estimate hand pose. Then, an LSTM Network under Tensorflow framework is trained to recognize hand pose.

**Alyssa Huang***Robotics 2018*

Alyssa was the only one-girl team among almost 500 high school teams that qualified for the VEX Robotics World Championship in May 2019. While an average team has 5-8 team members responsible for building, programming, driving, scouting, note-taking and coaching, Alyssa did it ALL! Not only that, among the 31 matches she played at Worlds since 2017, her team won 26 of them, a testament to her well-rounded engineering skills, determination, hard work, and passion for robotics.

Alyssa currently serves as the Co-president of OC engineer and the executive board member of STEAM For All student council in Orange County, California

IG: @vexteam88000

**Nikhil Kakarla***Robotics 2018*

I am a senior in high school at the Episcopal Academy. I am involved heavily in community service board and rocketry club as well as the running of my personal Belmont Charter Outreach initiative, where a friend and I teach weekly technology classes to underprivileged students at a local charter school. I attended M&TSI at Penn last summer and am working on the college application process now.

IG: @nikhil.kakarla

**Boyang Li***Robotics 2018*

As a senior at Taylor Allderdice High School, I am currently busy with my applications as well as other school activities, such as robotics club, fencing, and volunteering organizations. I plan to major in math in college, but haven't decided what to do in the future (which is why I chose math). Still having the craving for robotics engineering from ESAP, I am working on a side project in the robotics team before the FRC season starts; we are working on a Go-Kart that is capable of shooting wiffle balls. ESAP was truly an amazing summer experience, and I hope to be able to more of such activities in the future. (at Penn hopefully?)

**Duanduan Huang***Biotechnology 2017*

Currently freshman at UC Berkeley, working towards a Chemical Engineering degree. Joined ACS, a symphony orchestra, and a Chinese student club.

IG: @hddashley

**Ananya Jain***Biotechnology 2017*

For the past two summers, I have conducted original research through the Liberty Science Center's prestigious Partners in Science program. For eight weeks each summer (40+ hours a week), I worked at an inflammation research lab at the Ernest Mario School of Pharmacy. My focus was immunotoxicology. I researched the roles of farnesoid X receptor and surfactant protein C in pulmonary injury induced by nitrogen mustard and ozone, respectively. I conducted qPCR (quantitative polymerase chain reaction) and immunohistochemistry procedures.

I would never have had this opportunity without my experience at ESAP! By working on a Zika diagnostic test research proposal at ESAP, I realized that research was something I wanted to do.

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**Julian Mercado***Biotechnology 2017*

I'm currently undecided at the College of Arts and Sciences at UPenn. However, I'm interested in studying either chemistry or psychology. At Penn, I am also involved with the theater community, and I am currently working on a production of the show "Urinetown"

IG: @julianmercado215

**Alex Snyder***Biotechnology 2017*

I'm a senior in high school and will be applying ED to UPenn this November!! I am so grateful that I had the opportunity to participate in ESAP because it gave me such a huge appreciation for the field of engineering and biotechnology, as well as the opportunity to study at Penn.

My start-up, Alex's Innovations, has been doing really well! I have been making and selling friendship bracelets (as well as other cool handmade jewelry like circuitboard earrings) internationally. I have also created a YouTube channel with video tutorials for some of the bracelets I make! Go check it out! :)

IG: @AlexInnovations

YouTube: Alex's Innovations







### Nicholas White

*Biotechnology 2017*

I've been accepted to a local school, Southeastern Oklahoma State University. I got into the honors program and was elected the Honors Freshman Representative. I have also joined the Louis Stokes Alliances for Minority Participation. I've also become a Pharmacist assistant working for a local hospital.

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### Bryan Wu

*Biotechnology 2017*

I became a member of the Junior academy of the New York Academy of Science, and through it I'm currently working on a device which will help detect early signs of wildfire. I've also been working with a professor at USC on my first research project. Currently I am trying to help define the link between air pollution and certain aspects of aging.

This fall I'm applying ED to Rice University for Bioengineering.

### Ian Zhang

*Biotechnology 2017*

Ever since the ESAP's Biotechnology class in my freshman summer, I've discovered my interests in biology and environmental science. I've been very involved in the Environmental Action Committee in my school, serving as the Head of Data and Analysis, helping to make the school a greener and more sustainably aware community. I've also discovered an interest in economics and having taken two internships in China in marketing and finance, wanted to learn more about sustainable development.

I want to continue to study environmental science in college alongside business, hopefully at Penn next year.

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### Christina Liang

*Computer Graphics 2017*

Currently still in high school, but now in senior year and applying to colleges. Now working at a local pizzeria part-time. Doing two independent projects, one in French on the history and culture of protests/strikes (e.g. May 1968, Yellow Jackets) and one in statistics (Regression Analysis).

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### Michael Cyran

*Computer Science 2017*

Senior in high school, I'm captain of the varsity soccer team, I am involved with the computer club, I'm in the newly formed robotics club, and I am working on my eagle scout. For the past 9 months, I've worked at Jersey Mikes, and I'm currently working on an IOS app.

### Cher Ma

*Computer Science 2017*

I'm currently attending Harvey Mudd College as a freshman. I attended a summer camp with Google called Computer Science Summer Institute this past summer. I'm hoping to major in something related Computer Science, either CS or Math CS.

### Yuewei (Lucy) Yuan

*Computer Science 2017*

Now at UPenn doing a CIS major. In WICS.

### Henry Wolfson

*Nanotechnology 2017*

High school senior, waiting to hear from colleges- hopefully got into Penn! Will study engineering. Interned last summer at Nano lab at Penn.





**Asset Yermekkaliyev****Nanotechnology 2017**

I loved my team experience at ESAP 2017 program, and I decided to apply to the University of Pennsylvania under Early Decision. I am planning on majoring in Materials Science after my ESAP Nanotechnology Experience in 2017. My final project was dye-sensitized solar cells, and that was when I became interested in the renewable energy sector and decided to explore my interest further by accepting an internship at a natural gas power plant in Uralsk, Kazakhstan. I have also been participating in innovative projects such as space balloon where the camera attached to the balloon filmed its journey up to 100,000 feet.

**Xiaoqi Zhang****Nanotechnology 2017**

Williams college, possibly chem major. Research assistant at ENVI analysis [lab.xz5@williams.edu](mailto:lab.xz5@williams.edu)

**Sebastian Geraci****Networks 2017**

Since ESAP, I have continued to attend Waunakee High School in Waunakee Wisconsin. I founded school's computer science club, which helps people learn to program and compete in competitions. Last year I was the opinion editor of my school paper "The Purple Sage" and this year I serve as editor in chief. I also have a part time job as a tutor at a local math tutoring center and have joined BadgerLoop, a team that makes hyperloop pods for SpaceX's hyperloop competition.

[sammygeraci@gmail.com](mailto:sammygeraci@gmail.com)

**Michael Hanono****Networks 2017**

I started school this fall at The University of Southern California, majoring in Industrial and Systems Engineering and doing a minor in Computer Science. Moreover, I was selected to be an ambassador for The Morning Brew at my university and have joined several engineering clubs such as the Institute of Industrial and Systems Engineering. Studying NETS at ESAP was very helpful in deciding what to study and by motivating me to work hard at a college level course.

**Yunwei Hu****Networks 2017**

School: University of California, Berkeley

Major: civil engineering  
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**Tom Tang****Networks 2017**

I'm now a high school senior applying for colleges (Penn is still my top choice lol). ESAP taught me a lot and completely made me fall in love with engineering. In the past year, I did a bunch of fun projects on my own (some codes in Matlab and some little gadgets), and I'm glad that ESAP has set a great foundation for what I wanted to do. I went to m&tsi this summer to explore the business side of engineering and I absolutely loved it. I founded the LaunchX club in my school. I am looking at Penn m&t and system engineering for ed.

**Adrian Wang****Networks 2017**

I was accepted Early Decision into Penn, and I'm now part of the NETS class of 2022. I also serve as principal trumpet of the Penn Symphony Orchestra and the Penn Wind Ensemble.

**Laura Lewis****Robotics 2017**

The past year since graduating ESAP has been incredible. I was able to utilize my robotics skills gained during ESAP to help my team win a regional championship in FIRST robotics and compete in the FIRST World Championships. This summer I also participated in the MIT MITEs program and won the Edna and Leon Trilling Award for academic excellence. In addition, I was inducted into the Cum Laude Society. ESAP has opened up so many opportunities for me, thank you ESAP.

**Laura Lewis****Robotics 2017**

Thanks to ESAP I was accepted into multiple prestigious universities including MIT, Harvard, Stanford, and Princeton. Out of these great choices, I enrolled in the California Institute of Technology (Caltech) with an intended double major in mathematics and computer science.

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**Fiona McCann****Robotics 2017**

University of Southern California, Computer Science, Vice Chair of the Women in Engineering Board through our Viterbi School of Engineering.

[famccann@usc.edu](mailto:famccann@usc.edu)







### Adesanya Tito

*Robotics 2017*

Columbia University  
Mechanical Engineering  
Columbia Robotics, Columbia Space Initiative

Will be working at Tesla next summer  
Working on medical devices

### Sarah Tadlock

*Biotechnology 2016*

I'm a high school senior and IB Diploma Candidate. I spent two weeks in July backpacking in Yellowstone, backpacking and hiking over 90 miles. Prior to that, I spent a week at NASA Langley designing a manned mission to Mars. I've led the Varsity Cross Country team since June, and am excited to start winter track, where I'll be sprinting and hurdling. This weekend, our physics department will be traveling to West Virginia's Green Bank Observatory for a research trip. I'm looking forward to the rest of a great senior year!

### Edward Kim

*Computer Graphics 2016*

Since ESAP, I was admitted into UPenn's class of 2022 studying computer science.

### Brandon Reid

*Nanotechnology 2016*

I am currently at UPenn in the school of engineering. ESAP was a big reason as to why I choose UPenn and since I've been here, I've never been happier. I am taking piano lessons because I have always wanted to and I plan on joining clubs in my second semester to give myself time to adjust to the college lifestyle.

### Sanjna Ravichandar

*Robotics 2016*

I am a sophomore at MIT studying electrical engineering and computer science! I work at the MIT Computer Science and Artificial Intelligence Lab (CSAIL) with the Interactive Robotics group applying deep reinforcement learning to robotic hardware. I spent my first year at MIT working the Media Lab in the Biomechatronics Group, where I automated gait normalization for active prosthetics. I also run a competition dance team, am organizing a Machine Intelligence competition on campus, and am an EE mentor for a student run makerspace!

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FB: [Sanjna Ravichandar](#)

### Samia Muqem

*Biotechnology 2015*



I am in my 4th year at the University of Toronto doing a Specialist in Bioinformatics and Computational Biology (BCB). I am the Vice President of the BCB Student Union and am currently doing research at the Jurisica Lab in the Krembil Research Institute. My research is on transcriptional regulatory networks and trying to improve some predictive models and tools by making transcription factor-target gene associations more accurate with tissue specificity. I'm also a member of Students for Change, which works towards gender equity through education and activism.

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### Andrew Warner

*Biotechnology 2015*

I'm currently a computer scientist at Penn State. I have been doing research in applied data sciences and founded the largest data science club at Penn State: Nittany Data Labs. I'm applying to graduate schools for PhD programs in statistics.

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### Parker Frankiewicz

*Computer Science 2015*

I graduated HS in the top 2% of my class and currently attend Duke University. I intend to double major in Biology and Global Health, and minor in Spanish on the pre-med track. I am currently part of the FOCUS program, a small, interdisciplinary program for incoming freshmen, with a concentration in genetics and genomics. I serve as a tutor for the organization Gente Aprendiendo para Nuevas Oportunidades (GANO), which focuses on ESL tutoring for members of the Raleigh-Durham Laninx community. I'm also member of the Duke University Marching Band's drum line, Duke University Quidditch team, and the dance company, On Tap.

### Joseph Whaley Aboaf

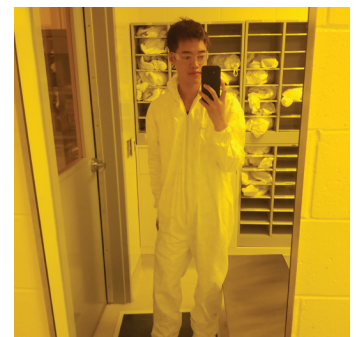
*Computer Science 2015*

This summer I interned at a mental health start-up where I quantified the factors that made a therapy group productive and developed a long-term data strategy. I'm now studying Mathematics at Cornell with two concentrations: computer science and operations research.

[joaboaf@gmail.com](mailto:joaboaf@gmail.com)

### Kenny Chui

*Nanotechnology 2015*



I am currently studying materials science and engineering at UIUC, a path I chose after finding interest in nanotechnology at ESAP. Over the past few years I have done internships at NASA JPL and Pratt & Whitney, and hope to work in the aerospace/defense industry after graduation.

IG: [@kenken662](#)



**Stella-Noella Tetero****Nanotechnology 2015**

I am currently a senior at Columbia University studying Chemical Engineering. I interned at an asset management firm in New York this summer, and I happily accepted a full time offer to work there after graduation. I am really excited for post-grad life in the city. On campus, I am involved in the Multicultural Affairs office in various programs, especially with the international community. I am excited for senior year, and look forward to spending more time with friends before we all move to different parts of the world.

FB: [Stella-Noella Tetero](#)

**John Flahive****Robotics 2015**

I'm a sophomore studying at UPenn as a CSCI major! I'm working as a lead software engineer on Penn Electric Racing, programming embedded systems and peripheral configuration programs. We're making our new car self-driving this year!

**Madeline Fagen****Biotechnology 2014**

I am currently a senior at the University of Pennsylvania studying the Biological Basis of Behavior. On campus I enjoy being the Co-President of the Wharton Undergraduate Healthcare Club and a member of the Counseling and Psychological Services Student Advisory Board. I am excited to join McKinsey & Company as a consultant upon graduation.

**Chantelle Lim****Biotechnology 2014**

Pursuing a PhD in Biomedical Engineering at Johns Hopkins School of Medicine. My research focuses on magnetic resonance imaging.

[chanzy.609@gmail.com](mailto:chanzy.609@gmail.com)

**Mihir Pethe****Biotechnology 2014**

University of Texas, math major, working at BCG starting September 2020, in organization to raise money for cancer research by biking to Alaska from Austin (will complete next summer)

[mihir.s.pethe75@gmail.com](mailto:mihir.s.pethe75@gmail.com)

**Chloe Le****Computer Graphics 2014**

Currently pursuing BSE from Penn's DMD program and MSE from Penn's CCGT program. I will graduate with my MSE in May 2020.

Last summer, I interned as a software engineer at the New York Times. This upcoming summer, I will be a software engineer intern at Facebook or Apple (currently deciding).

**Vivian Shen****Computer Science 2014**

I'm technically a senior at Columbia University studying computer science, but I'm currently taking the fall semester off to be an intern at Disney's research department! In the future, I hope to work in assistive robotics after earning my graduate degree, but I'm still figuring out what I want to do immediately when I graduate in May. All of my free time is spent on ultimate frisbee, a fantastically nerdy sport that I encourage everyone to pick up!

**Nathan Yang****Computer Science 2014**

I graduated from UCLA earlier this year with a B.S. in Computer Science and recently joined Redfin as a software engineer on the RedfinNow Engineering team in Seattle!

**Arpan Chakrabarti****Nanotechnology 2014**

I graduated from the University of Chicago in June 2019 with a BS in Statistics, a BA in Economics, and a BA in Mathematics. I am currently a Strategy Analyst at Accenture Strategy, working with C-suite executives to transform businesses by applying business intuition, analytics, and agile solutions.

FB: [Arpan Chakrabarti](#)

**Jessica Li****Networks 2014**

Jessica is a senior at Harvard, studying applied math, economics, and computer science. She is involved with Rough Draft Ventures (General Catalyst) as the Harvard venture partner, co-lead of the venture fellows program with Female Founders Fund, and a Harvard associate with top Series A fund, Romulus Capital. She continues to stay involved with Women in Business on campus, directing the Society of Women Leaders; runs the endowment of Harvard Student Agencies (the world's largest student run company); and helps lead ProMazo, a national edtech startup expanding to campus. This year, she has been primarily focused on her thesis research surrounding international joint venture bargaining theory and outcomes in China. Following graduation, she is joining Morgan Stanley in their Global Technology Investment Banking group.

**Xinyuan Pan****Robotics 2014**

I graduated from University of Texas at Austin this May with an Electrical and Computer Engineering bachelor's degree. I am currently a hardware engineer at Cisco in San Jose working on ASIC area.

FB: [Allen Pan \(add Cisco to find me\)](#)

**Onur Tuna****Robotics 2014**

Currently in my 5th and final year in Honours Computer Science at The University of British Columbia. I recently interned as a Software Developer at Microsoft, where I worked on creating an analytics dashboard for Azure Developers. This year I'm working at UBC PLAI on teaching self-driving cars to prevent collisions with other cars and surrounding objects.

IG: [@onurtuna10](#)

FB: [Onur Tuna](#)

[onurtuna@gmail.com](mailto:onurtuna@gmail.com)

**Melissa Austin****Biotechnology 2013**

I graduated from Johns Hopkins University this year with a BS degree in Biomedical Engineering. While at Hopkins, I was part of a team that filed a patent for a comfortable and discreet intranasal device alternative to nasal reconstructive surgery. Our device combats nasal breathing issues for people with mechanical nasal obstruction (i.e. abnormal nasal anatomy). I'm now a first year medical student at Sidney Kimmel Medical College at Thomas Jefferson University in Philadelphia.

**Matt Cartwright****Computer Science 2013**

I went to Penn and studied Economics, and I currently work full time as a category specialist on the exercise and fitness department of Walmart.com and Jet.com.

[matthewaltoncartwright@gmail.com](mailto:matthewaltoncartwright@gmail.com)

**Emmett Neyman****Computer Science 2013**

I've just started my senior year at Penn, majoring in Computer Science. Over this past summer, I interned at Google in Sunnyvale, CA. I worked with their C++ compilers team trying to find bugs in a popular open-source compiler.





**Palak Bajaj***Nanotechnology 2013*

I am currently working as a process control engineer for a pharmaceutical company, Eli Lilly.

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**Akhilesh Mishra***Nanotechnology 2013*

Graduated with a mechanical engineering degree from UC Berkeley, and started working at General Motors in 'Global Innovation'

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**Wyatt Mufson***Nanotechnology 2013*

I graduated from Northwestern University in 2018 with a degree in computer science. I am now the co-founder and CTO of Ryu Games, a San Francisco based startup developing SDKs for video game developers to implement real-money tournaments in their games.

[wyatt@ryu.games](mailto:wyatt@ryu.games)

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**Smith Christopher***Robotics 2013*

Completed my BS in Electrical & Computer Engineering at CMU with a minor in Social & Political History. Interned this past summer at Facebook. Currently back at CMU for my MS in ECE.

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**Nicolas Lozano Landinez***Robotics 2013*

Graduated from Stanford University, and commissioned into the U.S. Army as an infantry officer.

[nicolaslozano@gmail.com](mailto:nicolaslozano@gmail.com)

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**Chris Smith***Robotics 2013*

Graduated from CMU, Electrical & Computer Engineering, BS '18, MS '19. Working on practical AI solutions for business at Foundry.ai in Washington, DC.

[chris@chrissmith.tech](mailto:chris@chrissmith.tech)

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**Rex Ledesma***Biotechnology 2012*

Incoming Software Engineer at Airbnb after graduating with a Computer Science degree from the University of Maryland.

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**Conor Ryan***Computer Graphics 2012*

Graduated from Penn in 2017. Spent my first year working at JPM on trading platforms. Currently working at a fintech startup in their data science team.

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**Woojin Park***Nanotechnology 2012*

I recently graduated from Harvard University with a dual degree in Geology/Economics. Currently working on bank deposit pricing/scoring project at Novantas Inc.

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**Alan Soetikno***Nanotechnology 2012*

I'm working as a data scientist at Amazon.

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**Christopher Keane***Robotics 2012*

I'm in a PhD program in mathematics at the U of Oregon.

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**Andrew Remec***Robotics 2012*

Working full time as a mechanical engineer on various medical devices at DEKA Research & Development.

[AndrewRemec@gmail.com](mailto:AndrewRemec@gmail.com)

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**Maple Chen***Biotechnology 2011*

I really switched career paths over the past 7 years since I was at Penn, but now I work at American Eagle HQ as a merchant for Women's Jeans! It's super cool and even though it's unrelated to biotech most of the time, the skills and discipline I learned from my science days helps when I'm working on yet another spreadsheet. Hope everyone is doing well no matter where their paths have taken them :)

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**Bethany Lennox***Biotechnology 2011*

After completing my bachelor's and master's degrees in biomedical engineering at the University of Rochester, I am now working as a biomedical equipment specialist with the Indian Health Service in Pierre, South Dakota.

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**Matthew Deaton***Computer Graphics 2011*

I graduated from Drexel University's Interactive Digital Media program, and did my Co-Op at a small video game studio, a startup called Skyless Games. Thanks to a friend and coworker from my Co-Op, I currently work at Game-U, teaching 3D modeling and game design to adults with disabilities. It's a bit unpredictable at times, but it's a very rewarding job.

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**Remy Gates***Computer Graphics 2011*

I'm living out in LA working on music currently and writing poetry. I'm hoping to release some video work soon. My soundcloud is Yummy Online. And my poetry can be found under Remy Gates.

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**Ellen Kim***Computer Graphics 2011*

Majored in computer science in Boston College and currently am a Senior Software Engineer at DraftKings in Boston

[Ellenkimsy@gmail.com](mailto:Ellenkimsy@gmail.com)

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**Melisa Tokmak***Computer Science 2011*

I am a Rotational Product Manager at Facebook. I spent the last year working on great products from Ads to Instagram Growth and Facebook Stories.

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**Martina Lugo***Nanotechnology 2011*

I joined the Analytics team at a fintech startup called Petal, a credit card company that helps consumers access credit and build their credit history. The company does not rely on traditional credit scores but instead uses cashflow underwriting to obtain the full financial picture of an individual to approve them for the card. My experience has been highly rewarding and it's been incredible witnessing the company grow and helping consumers with no credit scores build their credit history.

[lugomartina@gmail.com](mailto:lugomartina@gmail.com)

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**Alexander Trick***Nanotechnology 2011*

PhD student at Johns Hopkins working on point-of-care microfluidic diagnostics.

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**Andrew Remec***Robotics 2011*

I'm currently working as a mechanical engineer at DEKA Research & Development.

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**Meredith Miller***Biotechnology 2009*

I'm currently studying to be a patent attorney at Fordham Law School. Before this, I got my masters in biotech at Johns Hopkins and was a structural biology researcher at MSKCC. As a result of my research there, I was published in Nature. The camp at Penn helped ignite my interest in biotechnology and helped me better understand how to apply the scientific method to unresolved issues in the biomedical field.

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**Shyam Sunder***Nanotechnology 2009*

Currently working as a Systems Engineer at Collins Aerospace in Hartford.

[CTsgs226@cornell.edu](mailto:CTsgs226@cornell.edu)

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**Beverly Yeh***Biotechnology 2008*

I teach 6th grade math as part of the 2017 Teach for America Corps in Western Massachusetts.

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**Jared Katz***Nanotechnology 2008*

I studied neuroscience at MIT, transitioned into software engineering (got some exposure to coding through lab work), left my job at Jet.com in February to start a crypto hedge fund focused on algorithmic trading. Still having trouble committing to one thing since I attended SAAST in 2008!

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**Max Kolysh***Robotics 2008*

I run a startup called zinc.io, where we build software for thousands of the largest retailers and online sellers.

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