ALEX B. JIANG

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EDUCATION

University of Pennsylvania, Candidate for B.S.E in Mechanical Engineering — August 2021 – Present
GPA: 4.0/4.0
Relevant Courses:

MATH 114 - Multivariable Calculus	CHEM 101 - General Chemistry I	CIS 120 - Programming Languages & Techniques
MEAM 101 - Intro to Mechanical Design	MATH 240 - Linear Algebra	MEAM 201 - Machine Design & Manufacturing
EAS 203 - Engineering Ethics	ESE 190 - Silicon Garage	

Extracurriculars:

- Engineering Student Activities Council (ESAC), *Social Chair*
- Penn Aerospace Club (PAC)
- UPennalizers
- Engineers Without Borders (EWB)

Montgomery Blair High School, Magnet Program — August 2017 - June 2021
GPA: 4.0/4.0
Honors and Awards: National AP Scholar (2020), Exploravision Honorable Mention (2020), International Public Policy Forum Runner-up (2021)
Extracurriculars:

- National Circuit Debate Team, *Founder and Team Captain*
  - Led team meetings, oversaw day-to-day operations, managed team finances; ranked as high as 1st nationally by the National Speech and Debate Association; champion of the Princeton Debate Tournament (2020) and the Harvard Round Robin Invitational (2021).
- Varsity Tennis Team, *Singles Player and Team Captain*

WORK & RESEARCH EXPERIENCES

Summer Researcher — June 2020 – October 2020
Independent –Mr. Quinn Shen (Engineer at UBER ATG)

- Developed and trained a neural network that predicts dense depth maps from input color images.
- Improved training accuracy by 10% by experimenting with various feature encoder architectures (ResNet, DenseNet).
- Studied the effects of introducing alternative representations of the RGB color model into the network.
- Awards
  - 3rd place in the machine learning category at the Washington Academy of Sciences competition.
  - Selected as one of the state 20 presenters at the Maryland Junior Science and Humanities Symposium.

Summer Intern — June 2019 – August 2019
Food & Drug Administration – Dr. Jiangqin Zhao

- Analyzed 23 HIV-1 samples from Cameroon using computer software (MEGA, online HIV-1 database) by identifying mutations, characterizing the samples by subtype, and finding start and end location of genes.
- Performed phylogenetic analysis on the samples to infer the evolutionary relationships between them.

Founder and Instructor — June 2020 – May 2021
AE Tutoring

- Maintain company website, lead marketing efforts, develop curriculum and course materials for classes.
- Taught two sessions of a two-week debate summer camp (2020) and two sessions of a fall debate course (2021).
- Recruited over 30 students; 100% of students said they would recommend the class to a friend.

TECHNICAL SKILLS & INTERESTS

Programming Languages: Python, Java, MATLAB, OCaml
Computer Software: Solidworks, Autodesk Inventor, Fusion 360, STELLA
Skills: laser cutting, 3D printing, leadership, communication, task management, organization
Interests: robotics, autonomous vehicles, product design, innovation & entrepreneurship, public speaking