

61 Chestnut Ridge Road, Holmdel, NJ 07733

Summary

High school senior interested in engineering and computer science. Experience with high-level research, robotics, and programming. Enjoys guizbowl, skiing, and implementing weird things in Haskell.

Skills and Knowledge

Software and Programming C, Python, Java, HTML/CSS/Javascript, IATFX, Git, GNU/Linux, Haskell

CAD Modeling and Prototyping Autodesk Inventor, SolidWorks, 3D Printing

> Languages English, Chinese, Latin

Education

High Technology High School

CLASS OF 2019

Ranked #1 STEM high school in the nation with all-honors, engineering-centric course offerings

Cumulative unweighted GPA: 99.08

Extracurricular Activity

Wearable Robotic Systems Laboratory, Stevens Institute of Technology

RESEARCH INTERN

June 2018 - Aug. 2018

Sept. 2015 - present

- Worked on 2 DOF haptic joystick with Professor Damiano Zanotto and other students at the lab
- Designed and implemented tension distribution scheme and joystick prototype

Department of Mechanical Engineering, Tsinghua University

RESEARCH INTERN

June 2017 - Aug. 2017

- Designed and prototyped a novel robotic finger while studying in the lab of Professor Wenzeng Zhang
- US utility patent application no. 15831346 under USPTO review

MATE Ranger Class Underwater Robotics Competition

MECHANICAL LEAD | CORRESPONDING SECRETARY

Sept. 2016 - Present

- Corresponding Secretary (2016-17) and Mechanical Lead (2017-19) for independent robotics team composed of local high school students
- Directed mechanics subteam in design, CAD modeling, construction, and documentation of underwater ROV

High Tech Academic Team

MEMBER AND PLAYER

Sept. 2015 - present

- Competed in local, state, and national guizbowl tournaments
- Designed and implemented automated scoresheet system and online hosting for statistics for High Tech student-run tournaments

Honors and Awards

| 2018 | oth Place Technical Documentation, Ranger Class, MATE International Underwater Robotics Competition | wasnington, USA |
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| 2018 | 2nd Place Overall, Ranger Class, MATE Regional Underwater Robotics Competition | Pennsylvania, USA |
| 2018 | 1st Place Technical Documentation, Ranger Class, MATE Regional Underwater Robotics Competition | Pennsylvania, USA |
| 2018 | Summa Cum Laude, Gold Medal, National Latin Exam Level III | New Jersey, USA |
| 2018 | 2nd Place Individual, 2nd Place Team, New Jersey Science League AP Physics I Competition | New Jersey, USA |
| 2018 | 1st Place, TSA State Convention Engineering Design, Optical Engineering | New Jersey, USA |
| 2018 | Selected Oral Presenter, National Junior Science and Humanities Symposium | Maryland, USA |
| 2018 | 2nd Place Paper, Student Presenter, Jersey Shore Junior Science Symposium | New Jersey, USA |
| 2017 | 2nd Place Individual, 1st Place Team, New Jersey Science League High School Physics Competition | New Jersey, USA |
| 2017 | Summa Cum Laude, Perfect Paper, National Latin Exam Level II | New Jersey, USA |
| 2016 | Summa Cum Laude, Perfect Paper, National Latin Exam Level I | New Jersey, USA |

Publications

• [in press] **Zheng, Eric** and Zhang, Wenzeng, 2018. "An underactuated PASA finger capable of perfectly linear motion with compensatory displacement". The Journal of Mechanisms and Robotics (doi: 10.1115/1.4041786)