Eric **Zheng**

High School Student

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Summary

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

Skills and Knowledge

Software and Programming	C, Python, Java, HTML/CSS/Javascript, LaTeX, Git, GNU/Linux, Haskell
CAD Modeling and Prototyping	Autodesk Inventor, SolidWorks, 3D Printing
Languages	English, Chinese, Latin

Education

High Technology High School — *Lincroft, NJ*
Class of 2019 — *Sept. 2015 - present*

- 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 — *Hoboken, NJ*
Research Intern — *June 2018 - Aug. 2018*

- 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 — *Beijing, China*
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 — *Marlboro, NJ*
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 — *Lincroft, NJ*
Member and Player — *Sept. 2015 - present*

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

Honors and Awards

2018	**5th Place Technical Documentation, Ranger Class**, MATE International Underwater Robotics Competition	*Washington, USA*
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

- **Zheng, Eric** and Zhang, Wenzeng, 2018. "An underactuated PASA finger capable of perfectly linear motion with compensatory displacement". *The Journal of Mechanisms and Robotics* **11**(1) (doi: 10.1115/1.4041786)