ISAAC S. PERPER

isaacperper.com
github.com/iperper
linkedin.com/in/isaac-perper-01
isaac.perper@gmail.com
415-308-2791 (cell)

EDUCATION

Massachusetts Institute of Technology — Cambridge, MA
Candidate for Bachelor of Science in Mechanical Engineering - 5.0/5.0 GPA — *June 2020*
Relevant Coursework: Automatic Controls, Signals and Sys., Fund. of Programming, Manufacturing and Design I, Fund. of Statistics, Prob. and Random Variables, Lin. Algebra, Intro. to Machine Learning, Intro. to Algorithms

Redwood High School — Larkspur, CA
4.0/4.0 GPA (unweighted) — *June 2016*
SAT Subject Tests: Math II 800, Physics 800, Chemistry 800; ACT: 34

WORK EXPERIENCE

MIT CSAIL - PavLab — Cambridge, MA
Summer Researcher — *June 2018-September 2018*
- Created battery management application for front-seat computer and sensors on REX unmanned surface vehicle
- Improved camera hardware with better mounting, camera, and lens selection
- Developed geo-location based object identification to detect stoplights on preplanned autonomous routes
- Learned C++ and MOOS-IVP marine robotics operating system for autonomous vehicles

Augmenta Bioworks — Mountain View, CA
Intern — *Summer 2017*
- Developed a prototype automation system independently that will enable high throughput analysis of lab process
- Built the system from the ground up, working on the design, fabrication, and controls side of the device
- Created Python-based control script to interface with several devices over serial communication protocols
- Used computer vision library to automate procedure commands based on cell image analysis

MIT Dept. of Nuclear Science and Engineering – Green Lab — Cambridge, MA
Student Researcher — *February 2017 – June 2017*
- Experimentally researched a quantifiable approach to improving the critical heat flux of various materials used in nuclear energy production through surface engineering
- Designed, machined, and fabricated test boiling chamber to use in tests

Odego — Cambridge, MA
Intern — *January 2017 – March 2017*
- Researched predictability of car breakdown repairs and price prediction of a given repair
- Developed customer acquisition strategies and the core business model to focus the company on the optimal route for growth and create maximum value for the customer

LEADERSHIP

Phi Sigma Kappa Fraternity — Boston, MA
President — *Spring 2019*
- Oversee operations of each sub-department and housing, including serving as semester's risk manager
- Conduct weekly house meetings and review day-to-day issues such fulfillment of weekly jobs and fines

MIT Rocketry Club — Cambridge, MA
Treasurer 2017-18 — *September 2016-September 2018*
- Designed and built test stand for solid rocket motors as a part of Ground Support Systems and Liquid Engine Development sub-teams
- Oversee spending and fundraising for a $40K budget, with the goal of reaching a record 80K flight

Eagle Scout — Tiburon, CA
Scout — *August 2009-June 2016*
- Collaborated with the local church to build and implement a user-friendly recycling and compost system
- Lead the troop on outings as Assistant Senior Patrol Leader and Patrol Leader

SKILLS

Software: SolidWorks, C++, Python, MATLAB, AutoCAD, Inventor, Linux, Arduino
Building/Design: Prototyping, Laser Cutting, 3D-Printing, Machining and Fabrication, Waterjet

EXTRACURRICULAR ACTIVITIES

MIT Varsity Soccer Team, Phi Sigma Kappa Social Chair, Redwood Rocketry Club (9th Place Nationally), MATE ROV, Redwood Environmental Action Club