

Alex Gao

CONTACT INFORMATION

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SUMMARY

I am particularly interested in the fields of robotics and artificial intelligence, as well as aerospace and computer engineering.

EDUCATION

Gunn High School, 2014 - 2018

WORK EXPERIENCE

NASA Ames Research Center, Mountain View, CA

Intern – Intelligent Systems Division

January 2017 – Present

Utilized artificial intelligence background in planning and decision making to develop a real-time decision support system for the Resource Prospector Mission lunar rover. Benchmarked industry-standard planning algorithms. Integrated demonstration with a decision-making algorithm, joint research paper and final report.

rLoop Inc, Menlo Park, CA

Embedded Controls Engineer

August 2016 – November 2016

Implemented and tested control and signal processing algorithms for hardware development test rigs. Won first place internationally in the January 2017 SpaceX Hyperloop competition

OPPO, Menlo Park, CA

Intern

June 2016 – August 2016

Worked on software and electronic tests, along with electronic prototyping for various devices. Wrote optimization software and automated common tasks.

Swiftworks, Palo Alto, CA

Founder

July 2015 – July 2016t

Built custom liquid-cooled and modded computer systems for clients in the gaming and professional industries with nationwide shipping. Also managed website development, invoices, and accounting.

ET Healthcare, Palo Alto, CA

Intern

May 2015 – September 2015

Developed a database system for each department for the medical device and biotech start-up.

RELEVANT EXPERIENCE

Gunn Zero Robotics Team, Gunn High School, CA

Founder and Captain

August 2016 – Present

Founded and led team to the International Finals for the Zero Robotics Competition—motivated by a problem of interest to DARPA, NASA, and MIT. Code ran on SPHERE satellites on the International Space Station.

Independent Research, Stanford, CA

Independent Researcher

January 2016 – Present

Conducted research with Professor Mykel Kochenderfer, director of the Stanford Intelligent Systems Laboratory, on algorithms for the design of robust decision making systems. Developed a multi-agent deep reinforcement learning system using machine learning and stochastic optimization techniques, and developed Julia packages for decision making under uncertainty.

Gunn Robotics Team, Gunn High School, CA

Controls Member

August 2015 – Present

Developed robotics controls systems for the FIRST Robotics Competition. Wrote code for vision tracking, autonomous programs, and PID control with Python.