Alex Gao

EXPERIENCE

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EDUCATION Henry M. Gunn High School, 2014 - 2018

Work Stanford Autonomous Systems Laboratory, Stanford, CA

EXPERIENCE Research Intern May 2017 - Present

Conducted research on autonomous aerospace vehicles. Used control theory, robotics, optimization, and operations research to develop the theoretical foundations for networked autonomous systems operating in uncertain, dynamic environments

NASA Ames Research Center, Mountain View, CA

Research Intern – Intelligent Systems Division

January 2017 – Present

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

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.

Stanford Intelligent Systems Laboratory, Stanford, CA

Research Intern January 2016 – March 2017

Conducted research with Professor Mykel Kochenderfer on algorithms for the design of robust decision making systems. Developed multi-agent deep reinforcement learning systems and developed Julia packages for decision making under uncertainty.

Swiftworks, Palo Alto, CA

Founder July 2015 – July 2016

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

ntern May 2015 – September 2015

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

RELEVANT Gunn Zero Robotics Team, Gunn High School, CA

Founder and Captain August 2016 – Present

Founded and led space robotics programming team to the international finals for the Zero Robotics Competition. Code ran on SPHERE satellites on the International Space Station.

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.