

Preston Rogers

ROBOTICS SOFTWARE ENGINEER

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Education

Stanford University

M.S. IN ELECTRICAL ENGINEERING

Stanford, CA

Sep 2019 - Jun 2021

- Specialization: Control and Optimization
- Cumulative GPA: 4.1

University of California, Irvine

B.S. IN ELECTRICAL ENGINEERING

Irvine, CA

Sep 2014 - Jun 2019

- Specialization: Digital Signal Processing
- Cumulative GPA: 3.9 (Summa cum laude)

Relevant Academic Projects

GRADUATE SCHOOL

Stanford, CA

Sep 2019 - Jun 2021

- Constructed robotic arm trajectories in simulation via open-source motion control software.
- Implemented collision-avoiding path planning software for a legged robot in MuJoCo.
- Established a Neural Network that mimics a Model Predictive Controller to operate a simulated vehicle.

Skills

Programming Languages

- C++, Python, C, MATLAB

Software

- ROS, Git, Altium Designer

Experience

NASA Jet Propulsion Laboratory

ROBOTICS TECHNOLOGIST

Pasadena, CA

Mar 2023 - Present

- Programmed embedded software in C for real-time applications such as an Endurance rover proof-of-concept.
- Developed C++ software for EGSE to test lander legs for the Sample Retrieval Lander (SRL) mission.
- Obtained SRL Sample Transfer Arm (STA) control stability analyses via MATLAB.

Dexterity AI

ROBOTICS SOFTWARE ENGINEER

Redwood City, CA

Nov 2021 - Jan 2023

- Increased line coverage of the C++ Operational Space Controls Software by 20% using GoogleTest.
- Introduced optimization to the line-kitting software for precise grasping.

Glidewell Dental

ELECTRICAL ENGINEERING INTERN

Irvine, CA

Jun 2019 - Sep 2019

- Programmed an embedded microprocessor for use in an X-Ray Scanner.
- Constructed the electrical system incorporating a PLC for a Curing Tunnel.

Prof. Al Faruque Lab (AICPS)

PAID UNDERGRADUATE RESEARCHER

Irvine, CA

Feb 2018 - Mar 2019

- Pioneered a C# GUI for real-time monitoring of sensor values.

Waterborne Skateboards

CO-FOUNDER AND CAD DESIGN ENGINEER

Irvine, CA

Jan 2017 - Jan 2019

- Refined a skateboard swivel truck using Solidworks.
- Forged a partnership with members of the UCI Wayfinder Incubator.