
Education

Cal Poly, San Luis Obispo	Graduated June 2019
BS in Physics, Minor in Computer Science	GPA: 3.7
Oregon State University	Graduated June 2021
MS in Computer Science	GPA: 3.7
Interests: Statistics, Data Science, Stochastic Systems, Information Theory, Programming Languages	

Skills

Languages TypeScript JavaScript C/C++ Python Java Bash SQL HTML CSS MatLab Haskell
Web React GCP AWS Node Webpack Redux Flask Firebase Express.js Jinja
Other Statistics Embedded Systems Data Analysis Controls Linux U-Boot git Github Jira CI/CD Jupyter

Experience

SpaceX	November 2021 - Present
Firmware Engineer	
<ul style="list-style-type: none">Parallelized initialization sequence on next-generation Starlink satellite phased array antennas to reduce boot time and increase developer productivity.Developed software to control Starlink satellite actuators and relay telemetry to the flight computer.Wrote a low-power demonstration application for an STM32 microcontroller to send GPS location over LoRA.Worked remotely on a complex project with a large team of engineers.	
Oregon State University	September 2019 - June 2021
Graduate Research Assistant	
<ul style="list-style-type: none">Applied statistical algorithms to develop a novel free space optical communication system.Measured digital transmission metrics like SNR and BER in lab and analyzed data for publication.	
Graduate Teaching Assistant	
<ul style="list-style-type: none">Taught and graded introductory courses for online data science MS program.	
Joby Aviation	Summer 2019
Embedded Software Intern	
<ul style="list-style-type: none">Developed embedded software for an innovative electric passenger airplane.Refactored core libraries to improve reusability and safety.	
Fullpower Technologies	Summer 2018
Embedded Software Intern	
<ul style="list-style-type: none">Brought-up newer U-Boot bootloader to improve boot times of a consumer embedded system.Met strict deadlines in advance of a mass-manufacturing run.	
Project Jupyter	April 2017 - November 2017
Frontend Software Engineering Intern	
<ul style="list-style-type: none">Did frontend web development for JupyterLab, an open-source data science platform with millions of users.Used Electron to create a native version of JupyterLab. Added native UI features using React.Worked directly with design team to create a compelling user experience.	
Cal Poly Satellite Research Lab	September 2015 - June 2019
Software Team Lead	
<ul style="list-style-type: none">Led developers to create flexible, fault tolerant, and reusable systems software for CubeSats.Worked with multidisciplinary team of engineers to fund, design, and assemble multiple satellites including PolySat's ISX, Exocube 2, DAVE, and LEO.Developed and tested an attitude determination and control system for CubeSats.Wrote Linux kernel module to handle interrupts from a GPS's pulse-per-second line and synchronize the clock.	

Other

- Cal Poly William L. Frost Scholarship recipient.
 - Hobbies: Running, Basketball, Music, Reading
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