

Alexander Wolfgang Hoppe

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location. San Francisco Bay Area

Summary

Mechatronics engineer with a passion for robotics and multidisciplinary, electro-mechanical design.

Education

Embry-Riddle Aeronautical University, Prescott AZ

Fall 2017 – Spring 2022

- Bachelor of Science in Mechanical Engineering, Robotics track
- 3.97 / 4.00 GPA, graduated Summa Cum Laude

Highline College, Des Moines WA

Fall 2015 – Spring 2017

- Associate of Arts with Emphasis in Mathematics
- 3.82 / 4.00 GPA, graduated with honors

Experience

Mechatronics Engineer, Stealth Startup

Spring 2022 – Present

- Developed mechanical, electrical, and software systems from conceptual designs all the way to deployment for autonomous industrial robots that operate in harsh field environments.
- Conceptualized, authored, and documented well organized robot software and firmware.
- Designed and built electromechanical assemblies by sizing and selecting off the shelf parts and working with vendors to fabricate, or personally fabricating, custom components.

Mechanical Engineer Intern, DEKA Research & Development

Spring 2021 – Fall 2021

- Developed and prototyped micro manufacturing systems for pharmaceutical products.
- Wrote test procedures and created test fixtures to ensure product regulatory compliance.

Mechanical Engineer Intern, Alphabet

Spring 2020 – Fall 2020

- Designed mechanical parts and assemblies for stratospheric telecommunication balloons.
- Designed custom test fixtures to gain greater insight into balloon material properties.

Mechanical Engineer Co-Op, General Dynamics Mission Systems

Spring 2019 – Winter 2019

- Developed electromechanical systems that operate in harsh undersea environments.
- Operated a 3D printing lab and gained experience managing and maintaining FDM printers.

Teaching Assistant, Embry-Riddle College of Engineering

Spring 2019 – Spring 2022

- Designed hardware and developed software for glare detection and mitigation research projects.
- Tutored students and graded assignments for MATLAB, CAD, and robotics classes.

Project Engineer, Embry-Riddle CubeSat Program

Fall 2017 – Winter 2021

- Coordinated integration efforts within an undergraduate CubeSat team and ensured compliance with launch provider requirements as a NASA Space Grant Scholar.

Skills

Design

- Solidworks
- Autodesk Inventor
- ANSYS Workbench
- SolidWorks Simulation
- GD&T & DFM Experince

Programming

- C, C++, & Python
- Beckhoff TwinCAT
- MATLAB & Simulink

Fabrication

- FDM & SLS 3D Printing
- Waterjet & Laser Cutting
- Shop Tools (Drilling, Cutting, etc.)
- Soldering & Electronic Fabrication
- Certified Heavy Equipment Operator

Software

- Confluence
- Asana & Jira
- Microsoft Office & Google Suite