ANDREW WOERPEL

920-988-5872   andywoerpel@gmail.com

PROFILE / OBJECTIVE

Highly motivated, hardworking, and technically diverse Engineer seeking the opportunity to work on educational robots with Lex Fridman.

EDUCATION

University of Wisconsin - Platteville Platteville, WI   Graduation: December 2017
College of Engineering, Mathematics, and Science
Major: Electrical Engineering, Digital Electronics Emphasis, Control Systems Emphasis   GPA: 3.86/4.00
Minor: Computer Science

WORK EXPERIENCE

SpaceX Hawthorne, CA / Boca Chica, TX   Apr 2020 – Jun 2021
Automation & Controls Engineer - Starship
- Designed and built automation cells for the production of Starship launch vehicles. The various cells performed welding and cutting on the primary structures of the vehicles.
- Developed skills with Kuka robots, vision systems, robotic welding (plasma, MIG), robotic plasma cutting, servo motor systems, VFDs, sensors, pneumatics systems, PLCs, and more.

SpaceX Cape Canaveral, FL   Jan 2018 – Apr 2020
Launch Engineers – Data and Control Systems
- Responsible for operational readiness of electrical and control systems at LC-39a and SLC-40 launch pads. Helped to launch 30+ rockets including 3 Falcon Heavy's and the first ever flight of Crew Dragon.
- Lead teams of technicians to perform launch pad upgrades and repairs. Notable upgrades include the systems that were necessary to launch SpaceX's first astronauts, Falcon-heavy specific support equipment, a PLC-based lightning warnings system, and numerous efficiency upgrades.
- Developed a web-based software application that significantly improved the speed and effectiveness of launch pad technicians/engineers.
- Designed and installed blast protection to help mitigate against the effects of rocket exhaust on the launch pads.

INTERNSHIP EXPERIENCE

SpaceX *Launch Intern*
- Helped build LC-39a
- Supported 4 launches

Rockwell Collins *Software Intern*
- Developed maintenance software for the Boeing 777x

ORBITEC *Electrical Intern*
- Supported ISS greenhouse project.

Plexus *Software Intern*
- Developed test software for a medical device

Seljan Company *Mech Intern*
- Designed production support equipment

TECHNICAL / ENGINEERING SKILLS

- Experience with industrial robots (Kuka, ABB, Yaskawa), PLCs, servos, VFDs, vision systems, sensors, HMIs.
- Programming experience with Python, C/C++, web stack, MATLAB, Verilog
- Networking, Frontend/Backend (Angular & Django) web development, Amazon Web Services, Google Firebase
- Experience designing, building, and troubleshooting data acquisition circuitry and software
- Circuit/PCB design and construction
- Solid modeling skills in Solidworks, NX, Fusion360. Strong skills with sheet metal design packages
- Excellent with hands on tasks such as fabrication and troubleshooting

MEMBERSHIPS / AFFILIATIONS

- Eagle Scout, Boy Scouts of America   2001 - 2012