MICLAINE EMTMAN

WORK EXPERIENCE

HARDWARE DEVELOPMENT ENGINEER II
SpaceX | February 2022-December 2023

- Responsible engineer for PCBA production yield and failure analysis on Gateway and satellite RF
- Root caused electrical and software failures, driving a 3.5X increase in production rate and restoring 1000+ failed PCBA's back to production
- Implemented flight software changes to ensure proper integration of new electrical designs
- Developed internal web application to track PCBA rework across Starlink program
- Designed circuitry and updated PCBA schematics to resolve defects and improve reliability

AVIONICS SYSTEM ENGINEER
SpaceX | February 2021-February 2022

- Lead Avionics Mission Operator on console for Falcon 9 missions- review & update mission specific flight software, run HITL, and respond to mission critical alerts during launch countdown
- Work closely with customers to integrate payload deployers onto Falcon rocket, ensuring the successful deployment of 100+ satellites
- Designed product for testing satellite separation devices, including UI, control software, and hardware
- Test and design electronics for ground systems and flight hardware

PROJECTS

Starlink PCBA Rework Web Application (SpaceX)
SQL, Flask, Javascript
A proprietary website used by engineers, managers, and technicians to effectively assign PCBA rework and communicate priority..

Rex iOS App (Personal)
"Rex - All Your Favorites" in iOS App Store | Firebase, Swift
A social app enabling users to create personalized 'boards' to organize and save their favorites, explore recommendations from friends, and seamlessly save suggestions from others.

Blog API (The Odin Project)
Miclaine-blog.netlify.app | React, NodeJS, Express, MongoDB
An API-driven blog platform built with an Express backend, serving two separate front-ends: one for users to view and interact with blog content, and another for admin management of posts and comments.

🌐 **miclaine.com**

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EDUCATION

B.S. Electrical Engineering
California Polytechnic State University – 2020

The Odin Project: Fullstack Web Development Course - 2024

SKILLS

- Swift, Javascript, Typescript, Python, SQL, C++, HTML, CSS
- React, Node.js, Express
- RESTful API's
- VSCode, XCode
- Firebase, MongoDB
- Jest
- Linux
- UI/UX Design, Figma
- Electronics Design