

Tristan Luther

Email: tristan.t.luther@gmail.com

Mobile: (805)630-6939

Software Engineer

Portfolio: tristanluther.com

GitHub: github.com/tristanluther28

EDUCATION

- Oregon State University** Corvallis, Oregon
 - Bachelor of Science - Electrical & Computer Engineering; GPA: 3.9* *September 2017 - June 2022*
 - Majored in Electrical and Computer Engineering (ECE), which includes the fundamentals and advanced topics of Electrical Engineering, with an emphasis on embedded systems, architecture, and networking.*

EXPERIENCE

- Software Engineer II** On-site
 - SpaceX, Full-time* *January 2023 - Present*
 - Full stack software developer for the Starlink PCBA production line. Developed production-critical processes and applications for translating circuit board design artifacts from CAD software into finished IPC Class 3 hardware.
 - Maintained a C#/.NET and Angular application for data translation and automation between systems and teams. Averaged 300+ daily active users across all SpaceX sites.
 - Developed and maintained a suite of Windows desktop applications for interacting with ECAD design software.
 - Developed dashboards and monitored application metrics as part of a routine on-call schedule to address production issues.
- EEE Components Engineer** On-site
 - SpaceX, Full-time* *September 2021 - January 2023*
 - Member of the newly formed EEE Components Engineering Team. Responsibilities included validating new component requests, communicating reliability and supply concerns with manufacturers and internal supply chain teams, and performing hardware-in-the-loop component validation testing.
 - Designed, ordered, and fabricated a majority of radiation test coupons for new components on Starlink satellite V2 hardware, resulting in 125 unique active component qualifications.
 - Created and maintained a fully custom product lifecycle management software application covering all Starlink products. Built using Python, Flask, and SQLAlchemy.
- Avionics Intern** On-site
 - SpaceX, Intern* *September 2020 - December 2020*
 - Assisted the Life Cycle Engineering Team with addressing testing, manufacturing, and potential design issues involving avionics hardware for Crew Dragon.
 - Created radiation test-bed hardware for validation testing on Starlink satellites.
 - Assisted with GaNFET reliability testing for Crew Dragon Flight 2.
- Naval Air Warfare Center Student Trainee (Engineering)** On-site
 - Naval Air Warfare Center Weapons Division, Intern* *June 2018 - August 2018*
 - Worked under aerospace and electronics engineers on the BQM-74E and BQM-34S projects. Responsibilities included writing and proofreading technical documentation for engineering changes to aircraft and testing avionics systems.
- Computer Engineering Intern** Remote
 - FormFactor, Inc., Intern* *March 2020 - September 2020*
 - Assisted with RF automation and manufacturing for probe cards and engineering probes used by customers. Automation software was written in C#, VB.NET, and LabVIEW.
- Electronic Store Manager** On-site
 - OSU Robotics Club, Manager* *January 2018 - September 2022*
 - Volunteered 300+ hours in a student-run electronics store called the ResiSTORE. Responsibilities included buying and selling components, restocking inventory, designing the store website, and training new volunteers.

SKILLS

- Languages/Frameworks** C#, .NET, Python, PHP, HTML/CSS, C/C++, SQL, Bash, L^AT_EX, LAMP, React, Angular
- Software Tools** Xpediton, KiCAD, Eagle CAD, Altium, Jira, Confluence, Git, Grafana, Prometheus, Docker, Kubernetes
- Hardware Tools** Oscilloscope, Frequency Generator, Electronic Load, Multimeter, SMD/SMT Rework, Soldering
- Credentials** Technician Class Radio Operator; Callsign: KI7YIQ, Part 107 licensed for sub-55 lb unmanned aircraft

PROJECTS

- Portfolio Website (DevOps, CI/CD, Metrics)** Portfolio website featuring electronics projects in a database-backed Flask application. Showcases third-party API integrations and custom metrics for logging and displaying visitor information. View at <https://tristanluther.com>. Tech: Python, SQL, Docker, Prometheus, Grafana (July 2022)
- ResiSTORE Website (Web Development, Ecommerce, Inventory Tracking)** Built a database of existing inventory organized into a formal grid system and displayed through an intuitive UX/UI at <https://resi.store>. Improved store sales by 300% in a single term. Tech: PHP, JavaScript, HTML/CSS, SQL (November 2018)