

Sean Marquez

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capsulecorplab@gmail.com

Technical Writer, specializing in documentation tools for distributed open-source hardware.

Experience

Old Dominion University

June 2021 - Present

Flight Software Systems Lead

Leading flight software architecture and development for the SeaLion mission - a joint CubeSat mission between the Old Dominion University (ODU) & Coast Guard Academy (CGA), validating a proof-of-concept deployable composite structure (DeCS), multi-spectral sensors, impedance probe, and S-band antenna, to be deployed as a secondary payload on the International Space Station (ISS) resupply mission.

Tetra Bio Distributed

March 2020 - Present

Technical Writer & Software Engineer

Maintaining build pipeline for publishing documentation for open-source medical devices, using a docs-as-code approach. Leading software architecture and development for qms-cli - a reference implementation of the Docs-as-Code for Medical Open-Source Hardware architecture.

Space Cooperative, Inc.

August 2017 - Present

Principal Investigator & Product Owner

Writing technical proposals for the NASA SBIR/STTR. Communicating with stakeholders to gather & specify software requirements. Verifying & validating software design against stakeholder requirements.

SolveCity

April 2017 - Jun 2017

Software Engineer

Researched personalized page rank algorithms and graph database schemes for developing a publication search engine for data scientists.

rLoop, Inc.

July 2015 - March 2017

Numerical Simulations & Control Systems Engineer

Developed 2D physics models & monte carlo simulations for analyzing trajectory dynamics and designing gain-scheduled PID controlled braking system for the hyperloop pod competition.

StrinKing Lacrosse, LLC

September 2015 - February 2016

Product Development Assistant

Designed custom testbeds & embedded software for product development team.

Max Q Systems, Inc

February 2013 - April 2014

Associate Mechanical Design Engineer

Maintained technical drawings and facilitated configuration management for OEM product line.

Education

University of California, Irvine | 2013 | Bachelor of Science (B.S.), Mechanical Engineering, specializing in design of dynamic systems

Skill Summary

Industry Knowledge

Software Engineering, Technical Writing, Open-Source, DevOps, Agile Software Development, Data Science, Project Engineering, Product Development, Aerospace, Model-Based Systems Engineering, Space Mission Analysis & Design.

Language Proficiency

Bash, Python, AsciiDoc

Tool Proficiency

Git, GitHub, Linux, Ubuntu, Vim, Docker, Hugo, AsciiDoctor, PlantUML

Organizations

Planetary Society, Learn Teach Code, San Gabriel Valley Linux Users Group, Write The Docs, SysML v2 Submission Team (SST)