Teddy. **Rendahl**

Software Engineer · Team Leader · Physicist

teddy.rendahl@gmail.com | www.teddyrendahl.com | teddyrendahl

Experience

OSARO
San Francisco, CA

Engineering Manager — *Nov. 2022 - Present*

- Managed a team of up to eight engineers, aligning product requirements with technical solutions using Agile methodology.
- Led the migration of a Python repository with over 40,000 commits to Rust, coaching developers through the conversion.
- Oversaw, wrote or reviewed all engineering tasks to deploy production ready computer vision and robotic pick and place solutions.

OSARO
San Francisco, CA

Senior Software Engineer — *Sep. 2019 - Present*

- Architected internal and external APIs for deployment of three different products across four continents.
- Led a cross-functional scrum team working on robotics and ML model accuracy to improve bin clear rate to upwards of 99%
- Optimized Python software, model inference, and path planning to increase robotic picking rate to over 1200 picks per hour.

SLAC National Accelerator Laboratory
Menlo Park, CA

Science and Engineering Associate — *Jun. 2015 - Aug. 2019*

- Incorporated a wide variety of instrumentation into the distributed software infrastructure of the accelerator.
- Led interdisciplinary teams that automated scientific and engineering processes within the lab.
- Developed a novel UI to display high rate instrument data interfaces for vital scientific operations.
- Modernized the Python ecosystem to incorporate test driven development practices and continuous integration.

Astrophysics Department at UCSC
Santa Cruz, CA

Undergraduate Researcher, Astrophysics Department — *July 2014 - Aug 2015*

- Developed a Python library that predicted the temporal variance in the spectrum of light emitted by young stellar populations.
- Optimized scientific algorithms using NumPy and MultiProcessing to improve cycle time of large scale simulations.
- Contributed to a scientific publication that continued work from my thesis.

Skills

Python	NumPy, OpenCV, Pytest, Pandas, Matplotlib, Asyncio, Multiprocessing
Rust	Bevy, Nalgebra, Tokio, WebAssembly
Other Software	Distributed Systems, Microservice Architecture, Git, Continuous Integration, Linux, gRPC, SQL

Education

Awards

2015 **Dean's Undergraduate Research Award**, Stochasticity in Nebular Emission Lines. *UC Santa Cruz*

Degree

University of California Santa Cruz
Santa Cruz, CA

Bachelor of Science in Applied Physics — *Sept 2010 - June 2014*

- Diverse coursework in Electrical Engineering, Computer Science and Physics
- Dean's Honors (2013, 2014)

Open Source Projects

ainyt
Automated Solutions to New York Times Puzzles and Games

- Written in Rust, uses browser automation and a variety of algorithms to solve NYT puzzles.
- Solves the Wordle game using Information Theory
- Solves the NYT Mini Crossword using ChatGPT, used as an exploration into Prompt Engineering

ugradrs
A lightweight Autograd engine with a small Neural Network library written in Rust

- Intended as a personal exploration of the inner workings of neural networks.
- Allows for the creation of a DAG of scalar value operations with a small Pytorch-like API wrapper.
- Usage demonstrated on a classification dataset based on scikit-learn's make moons function