Teddy. **Rendahl**

Software Engineer · Team Leader · Physicist

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Experience

OSARO
San Francisco, CA

Engineering Manager — *Nov. 2022 - Present*

- Led an interdisciplinary team of software engineers to further robotic pick and place capabilities.
- Managed assignments for roboticists, front-end, machine learning, and infrastructure engineers.
- Oversaw requirement gathering, development, testing, and deployment for novel Computer Vision and Robotics applications.

OSARO
San Francisco, CA

Senior Software Engineer — *Sep. 2019 - Present*

- Developed a state of the art software platform in Rust and Python for robotic pick and place applications.
- Architected a collection of microservices for data storage, collection, and ML model inference.
- Led development of a Computer Vision API, contributing to everything from camera control to data collection and visualization.

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 platform using Qt 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)

Publications

SLUG - Stochastically Lighting Up Galaxies III
UC Santa Cruz

A Suite of Tools for Simulated Photometry Spectroscopy Stochastic Stellar Populations — *Dec. 2013 - Aug. 2014*

- Helped write and document a large scientific Python codebase capable of created accurate simulations of young stellar populations.
- Received Undergraduate Research Award for work done for this publication and related thesis work.

Se-SAD Serial Femtosecond Crystallography
Linear Coherent Light Source

Datasets from Selnobiotinyl-Streptavidin — *Dec. 2016 - Aug. 2017*

- Designed and deployed hardware and software for setup of experiment.
- This included the timing system capable of coordinating X-Ray and visible light laser sources on a femtosecond time scale