Peyton D. Murray

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Skills	Open-Source Leadership, Scientific Computing, Data Visualization, Full-Stack Development
Languages	Python, Typescript, Go, C/C++, Rust
Frameworks & Tools	CI/CD (GitHub Actions), FastAPI, Django, React, PostgreSQL, Pytest, Python scientific ecosystem, Meson

Experience

Quansight   *Senior Software Engineer*   May 2021 - Present

- Backend open-source engineer in Quansight's consulting branch. Contributed open source bug fixes, feature development, and maintenance for large and critical packages in the Python scientific ecosystem, including `jupyter`, `scipy`, `numpy`, `conda`, ecosystem and many smaller projects. Reduced `ray`'s CI documentation build time (~1hr) by 50%, and automated building, linting, publishing, and testing for the `tensorflow` ecosystem with ~40 CI/CD workflows
- Built and released Python code in addition to C/C++ and Rust for performance-critical applications.
- Led design and delivery for open source contracts as tech lead for teams of 5-10 engineers on projects used by millions of developers, including NumPy, SciPy, Jupyter, Ray, TensorFlow. Delivered all contracts on schedule and within budget.
- Mentored and advocated for a global team of junior engineers; managed multiple open-source contracts simultaneously.

Voltaiq   *Software Engineer*   Oct 2019 - May 2021

- Developed, deployed, and maintained a SAAS data analytics platform for the world's largest battery manufacturers and consumers.
- Built REST APIs (Python, Django, PostgreSQL) and React dashboards with Plotly.js for data visualization.

Tampere University   *Postdoctoral Scholar*   Jan 2019 - Aug 2019

- Developed 3D voronoi tesselation and performance improvements for an [open-source magnetics simulation engine](#) using Go and CUDA C.
- Scaled simulations by automating simulation configuration and parallelizing across a [GPU cluster](#) using SLURM.

UC Davis Department of Physics   *Graduate Student Researcher*   Aug 2012 - Dec 2018

- Developed open source Python tools for analyzing and plotting magnetic measurements and MCMC sample analysis.

Lawrence Berkeley National Laboratory   *Junior Specialist*   May 2011 - May 2012

- Developed control software (C++ and Qt) for automated circuit testing. Hardware tested with this system was deployed as part of the [Insertable B-Layer system](#) at the Large Hadron Collider in 2014, enabling continued studies of the Higgs boson.

Education	University of California, Davis: M.S. & Ph.D. Physics 2012 - 2018
	St Mary's College of California: B.S. Physics, Minor: Mathematics 2007 - 2011
Teaching	*Teaching Assistant*, **Physics Department, University of California, Davis** 2012 - 2016
	Student Tutor and Live-In Mentor, **Dept. of Physics, St Mary's College of California** 2010 - 2011
Awards	3rd Place Winner, 2020 John D. Hunter Excellence in Plotting Contest. [Entry (video)](#), [Source repository](#)

Publications, selected conferences, and laboratory skills are listed on the extended CV [on my website](#).