

Peyton D. Murray, Ph. D.



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Skills	Open-Source Leadership, Scientific Computing, Data Visualization, Full-Stack Development		
Languages	Python, Go, C/C++, Rust, Typescript		
Frameworks & Tools	CI/CD (GitHub Actions), FastAPI, Django, React, PostgreSQL, Pytest, Python scientific ecosystem, Meson		
Experience	OpenTeams (formerly Quansight)	<i>Senior Software Engineer</i>	May 2021 - Present
<ul style="list-style-type: none">Led design and delivery for open source contracts as tech lead for teams of 5-10 engineers on contracts as large as ~\$1M, providing open-source consulting services for foundational packages in the Python scientific ecosystem. Delivered all contracts on schedule and within budget.Mentored and advocated for a global team of junior engineers; managed multiple open-source contracts simultaneously.As an individual contributor I developed bug fixes, features, accessibility enhancements, performance optimizations, tests, improved observability, CI/CD, and project maintenance for jupyter, scipy, numpy, conda, ray, tensorflow, and many smaller projects used by millions of Python developers.Reduced ray's CI documentation build time (~1hr) by 50%, and automated the building, linting, publishing, and testing of the tensorflow ecosystem with ~40 CI/CD workflows spread across multiple projects.Built and released Python code in addition to C/C++ and Rust for performance-critical applications.			
Voltaiq	<i>Software Engineer</i>		Oct 2019 - May 2021
<ul style="list-style-type: none">Developed, deployed, maintained, and supported production deployments for 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	<i>Postdoctoral Scholar</i>		Jan 2019 - Aug 2019
<ul style="list-style-type: none">Developed 3D voronoi tessellation and performance improvements for an open-source magnetics simulation engine using Go and CUDA C, improving materials research for thousands of top magnetics scientists.Scaled simulations by automating configuration and parallelizing across a GPU cluster using SLURM.			
UC Davis Department of Physics	<i>Graduate Student Researcher</i>		Aug 2012 - Dec 2018
<ul style="list-style-type: none">Developed open source Python tools for analyzing and plotting magnetic measurements and MCMC sample analysis.Implemented a Savitzky-Golay filter to cut processing times for magnetic measurement data from 15 minutes to <1 second.			
Lawrence Berkeley National Laboratory	<i>Junior Specialist</i>		May 2011 - May 2012
<ul style="list-style-type: none">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 St Mary's College of California: B.S. Physics, Minor: Mathematics		2012 - 2018 2007 - 2011
Teaching	<i>Teaching Assistant, Physics Department, University of California, Davis</i> <i>Student Tutor and Live-In Mentor, Dept. of Physics, St Mary's College of California</i>		2012 - 2016 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](#).