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| Ian Rose  Data science, software engineering, geology | email ian.r.rose@gmail.com  website <https://ianrose.website>  twitter @ian-r-rose  phone +1 (510) 332-7585 |
| WORK | Quansight / Software Engineer2018-PRESENT Contractor developing tools and integrations for data scientists. Much of my work has been on improving the integration a GPU-based relational database (OmniSci) with the broader Python data science ecosystem. Berkeley Institute for Data Science / Postdoctoral Fellow2016-PRESENT Core developer for Project Jupyter. I am a developer of JupyterLab, the next-generation front-end for Jupyter notebooks. This is one of the central tools used by data scientists (primarily, but not exclusively in the Python ecosystem). In this capacity I do software engineering, mentorship, and outreach to the data science community. I am also a member of the Pangeo collaboration, which has the goal of bringing petabyte-scale analysis of Earth data to the cloud and HPC environments. |
| EDUCATION | University of California, Berkeley / Ph.D.2009-2016 Earth and Planetary Science  Thesis: *True polar wander on convecting planets* Yale University / B.S2005-2009 Geology and Physics |
| COMPUTING | **Programming Languages**  C, C++, JavaScript, TypeScript, Python, MATLAB/Octave, SQL, bash, awk, HTML, CSS  **Computational Methods**  GIS analysis, visualization and mapping, ordinary/partial differential equations, regression modeling, Monte Carlo methods  **Software**  LaTeX, git, GitHub, node, Jupyter notebooks, standard \*nix tools  **Operating Systems**  Linux, Mac OS, Windows |
| SELECTED SOFTWARE PROJECTS | **JupyterLab**  Next generation front-end for Jupyter. In addition to developing the core project, I also help develop and shepherd the extension ecosystem, including extensions for working with Dask, GitHub, Google Drive, and \LaTeX. (core developer)  **jupyterlab-omnisci**  Integrations between JupyterLab and OmniSci, a GPU-based relational database for fast SQL analytics. (co-author)  **dask-labextension**  Tooling for making large distributed computations in Python more accessible and flexible. (co-author)  **Interactive Earth**  Educational software for teaching about the physics of planetary interiors, including thermal and thermochemical convection and seismic tomography. (author)  **Commuting Operation**  Web application for what I want out of a real-time transit arrival service. (author)  **buckinghampy**  Educational Python module for performing dimensional analysis. (author) |
| PUBLICATIONS | Swanson-Hysell, N., Ramezani, J., Fairchild, L., and Rose, I.. *Failed rifting and fast drifting: Midcontinent Rift development, Laurentia's rapid motion and the driver of Grenvillian orogenesis.* 2019, Geological Society of America Bulletin  Rose, I. and Buffett, B.. *Scaling for rates of true polar wander in convecting planets and moons*. Physics of the Earth and Planetary Interiors, Volume 273. 2017.  Rose, I., Buffett, B., and Heister, T. *Stability and accuracy of free surface time integration in viscous flows.* Physics of Earth and Planetary Interiors, volume 262. 2017  Cottaar, S., Heister, T., Rose, I., and Unterborn, C. *BurnMan: A lower mantle mineral physics toolkit*. Geochemistry, Geophysics, Geosystems, 2014. |
| SELECTED TALKS AND CONFERENCE PROCEEDINGS | Rose, I. *JupyterLab*, PyData Los Angeles, 2018  Colbert, C., and Rose, I. *JupyterLab*, JupyterCon, 2018  Colbert, C., Granger, B., and Rose, I. *JupyterLab, the next-generation Jupyter frontend,* JupyterCon, 2017  Colbert, C., Granger, B., and Rose, I. *JupyterLab + Realtime Collaboration*, PyData Seattle, 2017  Rose, I. *Interactive investigations into planetary interiors*. Talk, AGU Fall Meeting 2015  Rose, I., Buffett, B., and Heister, T. *Stable time integration of a free surface in geodynamics simulations.* Poster, AGU Fall Meeting 2015  Rose, I. *True polar wander in convecting planets*. Computational Math Seminar, Clemson University, April 2014  Cottaar, S., Heister, T., Rose, I., and Unterborn, C., *An introduction to BurnMan*. Computational Infrastructure for Geodynamics Webinar, October 2015  Rose, I., and Buffett, B.. *Continents and Earth's rotational stability*. Poster, AGU Fall Meeting 2014  Rose, I., and Buffett, B.. *Rates of true polar wander in convecting planets*. Poster, SEDI meeting 2014 |