IAN ROSE

Data scientist/geologist

email	ian.r.rose@gmail.com
website	https://ianrose.website
github	@ian-r-rose
phone	+1 (510) 332-7585

WORK

	2018-present	**Quansight**
Software Developer		Contractor developing tools and integrations for data science practitioners.
	2016-present	**Berkeley Institute for Data Science**
Postdoctoral Fellow		Core developer for Project Jupyter. Developing JupyterLab, the next-generation frontend for Jupyter notebooks.

EDUCATION

	2009-2016	**The University of California, Berkeley**
Ph.D.		Earth and Planetary Science Thesis: *True polar wander on convecting planets*
	2005-2009	**Yale University**
B.S.		Geology and Physics

COMPUTING

Languages	C, C++, JavaScript, TypeScript, Python, MATLAB/Octave, SQL, bash, awk, HTML, CSS
Methods	Ordinary/partial differential equations, GIS analysis, visualization and mapping, Monte Carlo methods
Software	LaTeX, git, node, Jupyter notebooks, standard *nix tools
Operating systems	Linux, Mac OS, Windows

SELECTED SOFTWARE PROJECTS

JupyterLab	Next generation front-end for Jupyter. (core developer)
Interactive Earth	Educational software for teaching about the physics of planetary interiors, including thermal and thermochemical convection and seismic tomography. (author)
ASPECT	Finite element software for mantle and lithospheric dynamics simulation. (contributor)
Commuting Operation	Web application for what I want out of a real-time transit arrival service. (author)
BurnMan	Python library for generating thermodynamic and thermoelastic models of planetary materials. (co-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*. In Press, 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.

TALKS AND CONFERENCE PROCEEDINGS

Nestor, G., and 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