SCOTT D. HULL

PLANETARY SCIENTIST
SOFTWARE DEVELOPER

CONTACT

125 S. Oval Mall
275 Mendenhall Laboratory
Columbus, OH 43210

EMAIL HULL.249@OSU.EDU
PHONE 330-501-3805
GITHUB GITHUB.COM/SCOTTHULL

SKILLS

– Self-taught programmer
  (Python, JavaScript)
– Web platform backend development
  (Django, Flask)
– API Development
  (Django REST Framework, Flask)
– Web design (HTML, CSS, Jinja2, D3.js)
– Python parallelization for supercomputer
  deployment
– Amazon AWS EC2/Elastic Beanstalk
  deployment
– Large-scale scientific data processing &
  delivery (NumPy, Pandas, GeoJSON)
– Geological field mapping and
  cross-section construction
– Petrographic mineral identification

EDUCATION

M.S. THE OHIO STATE UNIVERSITY

AUGUST 2017 – MAY 2019

Earth Sciences, Graduate Research Assistant
Thesis: *Siderophile Element Partitioning in Terrestrial Magma Oceans: 3D Modeling of Iron Rain*

- Developing the *Chimera* 3D modeling Python library to investigate planet formation. Collaborating with scientists at the Ohio Supercomputer Center (OSC), Arizona State University (ASU), and the Earth-Life Science Institute (ELSI) at the Tokyo Institute of Technology.
- 3.53 GPA

Publications

- Unterborn, Cayman T., et al. "Stellar Chemical Clues As To The Rarity of Exoplanetary Tectonics." arXiv preprint arXiv:1706.10282 (2017).

B.S. THE OHIO STATE UNIVERSITY

AUGUST 2013 – AUGUST 2017

Earth Sciences, Petroleum Geology & Geophysics
Honors, Awards & Activities

- Graduation with Research Distinction (2017), 3.32 GPA
- Thesis: *The Prevalence of Exoplanetary Plate Tectonics*
- Denman Undergraduate Research Forum (4th Place 2016, 3rd Place 2017)
- OSU College of Arts & Sciences Research Scholarship (2015, 2016)
- OSU Geology Field Camp Academic Scholarship (2016)
- OSU Geology Field Camp (Summer 2016, Ephraim, UT)
- Shell Undergraduate Research Experience (Summer 2015)
- OSU Men's Novice Rowing Team (Autumn 2014)

EXPERIENCE

INQUIRING SOLUTIONS

AUGUST 2016 – PRESENT

Lead Web Developer
Software consultant and lead web developer for the *StormImpact* platform utilizing Python & JavaScript. GUI development in Tkinter, REST API and user interface development with Flask, Django, and SQLite. Web page design with HTML/CSS/Jinja2. Data visualization through the GoogleMaps JavaScript API. Directing other team members on how to structure accessory code for use on the *StormImpact* web platform. Products in use at major US power companies.

OHIO STATE MINERAL PHYSICS RESEARCH GROUP

FEBRUARY 2015 – PRESENT

Research Assistant

- **M.S.** Assessing iron penetration in lower mantle convection cells and calculating elemental partitioning and heat conduction around sinking iron droplets in primordial planetary magma oceans.
- **B.S.** Developed *Exoplanet Pocketknife* Python software wrapper and data parser. Produced approx. 1400 geochemical exoplanet simulations for *Unterborn et al. 2017*. Managed simulation data for collaborating scientists presenting at conferences and releasing results to the press.

BATTELLE MEMORIAL INSTITUTE
NOVEMBER 2016 – MARCH 2017
Intern
Built file parsing and consolidation tools in Python for internal geological data management in local, government, and international energy projects.

TALKS & PRESENTATIONS

- Deep-time Data Driven Discovery (4D) Workshop
  Summer 2018, Washington, D.C.
- Earth-Life Science Institute (ELSI) Origins of Life Winter School
  Winter 2018, Tokyo, Japan
- Earth-Life Science Institute (ELSI) Colloquium
  Winter 2017, Tokyo, Japan
- Denman Undergraduate Research Forum
  Spring 2016, 2017, Columbus, OH
- American Geophysical Union (AGU) Fall Meeting
  Fall 2016, San Francisco, CA
- Ohio State Fall Undergraduate Research Forum
  Fall 2015, Columbus, OH