Joshua Geden

joshgeden10@gmail.com | linkedin.com/in/joshua-geden | github.com/Josh0823 | joshgeden.gatsbyjs.io

Experience

Software Engineer Intern, Lawrence Berkeley National Laboratory — Feb. 2022 - May 2022
Berkeley, CA

- Engineer with AmeriFlux, a collaborative network of research sites measuring CO2, water, and energy fluxes
- Using Python to develop a scientific data pipeline and a comprehensive test suite with CI/CD

Software Engineer, MealMe (Contract) — Jan. 2022 - Feb. 2022
San Francisco, CA

- Responsible for development of the internal customer support website, used by a team of over 15 support staff
- Implemented numerous features to improve efficiency and ease of use (status tracking, handling, filtering, refunds)
- Wrote and deployed scripts to maintain database integrity by identifying and removing duplicated & unused data
- Monitored tracking system and ensured delivery orders were properly linked with delivery service ETA

Software Engineer Intern, National Energy Research Scientific Computing Center (NERSC) — May 2021 - Aug. 2021
Berkeley, CA

- Leveraged Jupyter to enhance the usability of NERSC's supercomputing systems
- Contributed numerous open-source extensions to the Jupyter ecosystem and published them as pip packages
- Built frontend web components with React & Typescript and backend web servers with Python
- Implemented CI/CD pipelines with GitHub actions and Selenium tests to automatically ensure application integrity

Volunteer Software Engineer, Me.reka Makerspace — Jun. 2021 - Jul. 2021
Kuala Lumpur, Malaysia (Remote)

- Volunteered with a team 4 Duke students on Me.reka's education management platform
- Refactored existing Angular components to be modular and easier to maintain long term
- Expanded server infrastructure & database capabilities with Firebase

Teaching Assistant, Duke University, Computer Science Department — Jan. 2020 - May 2021
Durham, NC

- COMPSCI 230, Discrete Math for Computer Science, Jan 2021 - May 2021
  - Taught topics including proofs & logic, set theory, induction, probability, and graph theory
- COMPSCI 201, Data Structures & Algorithms, Jan 2020 - Nov. 2020
  - Taught topics including arrays, linked-lists, maps, trees, queues, stacks, and time & space complexity analysis

Education

Duke University, B.S. Computer Science, B.A. Linguistics, German Minor — Aug. 2019 - May 2023
Durham, NC

- Current GPA: 3.98/4.0

Projects (All projects visible at Github link above)

JupyterLab Slurm Extension

- Collaborated on a Jupyter GUI for managing supercomputing jobs with Slurm scheduler
- Added configurability to the Python backend through the Traitlets library
- Updated the UI with React to add search functionality and improve design

JupyterHub Custom Entrypoint Service

- Created a JupyterHub service and RESTful API with Python backend and jinja template frontend
- Maintains custom Jupyter entrypoint settings for 8,000+ computational researchers
- Presented project at CSSP poster session and Jupyter in HPC monthly meeting

Duke Pet Tracker Web Application

- Developed a full-stack, multi-user, location-based image sharing web application
- Technologies used: Vue, Express, Google Firebase, Google Passport OAuth

Skills

Python (Flask, sklearn, Selenium), Javascript (React, Vue, Node), Java, C++, R (dplyr & ggplot), Firebase
Familiar with Git, Linux, and Docker development environments
Coursework in Data Structures, Computer Architecture, Web Applications, Functional Programming, & Data Visualization