

Joshua Geden

Student Software Engineer | +18643733991 | joshgeden10@gmail.com | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

EXPERIENCE

NASA Jet Propulsion Lab, Avionics Subsystem Engineering Group

Pasadena, CA

Incoming Software Engineer Intern

May 2022 - Jul. 2022

- Internal tools for the Flight Software and Avionics Systems teams of the [Europa Clipper](#) mission
- Creating an interactive UI with Vue to manage and debug the spacecraft's FPGA register maps

Berkeley National Lab, Usable Software Systems Group

Berkeley, CA

Software Engineer Intern

Feb. 2022 - May 2022

- Engineer with [AmeriFlux](#), a network of environmental research sites with 11,000+ users
- Added new data analysis modules for AmeriFlux's QA/QC pipeline with numpy and Matplotlib
- Enhanced regression testing by adding to a CI/CD test suite with pytest, CircleCI, and Codecov

MealMe

San Francisco, CA

Full Stack Developer (Contract)

Jan. 2022 - Feb. 2022

- Responsible for development of the support web app, used to manage \$50,000+ worth of orders a day
- Added status tracking, order handling, filtering, and refund features with jQuery and Flask
- Wrote and deployed scripts to maintain, modify, and query Firebase and MongoDB databases

National Energy Research Scientific Computing Center (NERSC)

Berkeley, CA

Software Engineer Intern | [Blog Post](#)

May 2021 - Aug. 2021

- Leveraged Jupyter to boost the usability of NERSC's HPC systems for thousands of scientific users
- Built [documentation](#) and [announcement](#) extensions for JupyterLab using Typescript
- Collaborated on a [Slurm UI extension](#) to manage supercomputing jobs in JupyterLab using React
- Prototyped a [full-stack custom service](#) for JupyterHub to manage launch environments using Tornado

EDUCATION

Duke University

Durham, NC

B.S Computer Science, B.A. Linguistics, German Minor

Aug. 2019 - May 2023

- International Collegiate Programming Competition Club, Volunteer with Technify, Duke in Berlin
- Dean's List all semesters

SKILLS

Software and Programming Python (Flask, Selenium, numpy, pytest), Javascript/Typescript (Vue, React, Node) Go, C++, R (dplyr, ggplot), Firebase, SQL, Redis, Docker, Linux, Git

Coursework Data Structures, Computer Architecture, Web Apps, Functional Programming, Data Visualization, Linear Algebra, Probability

PROJECTS & VOLUNTEERING

GroupDuke | [GitHub](#)

Building a full-stack web app to help Duke students find course GroupMe chats

- Reactivate multi-page frontend built with SvelteKit web framework
- Backend built with Go; implemented authentication, registration, and Firebase interactions

Me.reka Makerspace | [Website](#)

Volunteer Software Engineer

- Refactored existing Angular components to be modular and easier to maintain long term
- Expanded server infrastructure & database capabilities with Firebase and Firestore

SimplyFrank | [GitHub](#)

Simulated Compiler and Interpreter

- Designed and implemented a programming language called SimplyFrank based on BASIC syntax
- Built a compiler and interpreter with C++ to execute SimplyFrank as Simulated Machine Language