

Seong Kyoo Maeng

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EDUCATION

University of California, Berkeley

Expected Graduation: May 2022

Electrical Engineering & Computer Sciences, B.S.

Berkeley, CA

- Cumulative GPA: 3.54 / 4.0
- **Relevant Coursework:** Operating Systems (162) | Database (186) | Computer Security (161) | Artificial Intelligence (188) | Computer Theory (170) | Data Structures (61B) | Computer Architecture (61C) | Discrete Mathematics & Probability Theory (70) | Structure and Interpretation of Computer Programs (61A)

EXPERIENCE

Backend Software Engineering Intern

Nov 2020 - April 2021

Pathloom

Remote

- Worked in **Node.js** and **PostgreSQL** to bolster backend components, from API integration to database management
- Built **REST APIs** and responsive user-interface using **Node.js** and **Express.js** allowing outdoor adventurers to map custom routes for camping and hiking
- Analyzed core data in **R** and **Python**, producing distilled data files and statistical profiles

Software Designer - with Dr. Levison and Dr. Boostra

Sep 2019 - Nov 2019

NASA L'Space

Remote

- Created a preliminary design review by leading a virtual team of 10 engineering students
- Communicated project status updates to the supervising team at NASA on a monthly basis

PROJECTS

Pathloom App - Node.js, Vue.js, Express.js, Sequelize, PostgreSQL, Mapbox

Nov 2020 - April 2021

- Implemented features including form validation and dashboard using **Node.js** and **PostgreSQL**
- Generated **GeoJSON** data for campgrounds and trails using **ASP.NET** Web API
- Worked on end-to-end algorithmic design solutions as a core component in Pathloom's backend

Numc - C, Python, Numpy, SIMD Extensions, OpenMP, JUnit

Aug 2021

- Created features of **Numpy** including arithmetic and matrix operations using **C** and **Python**
- Optimized performance of matrix operations using **SIMD Extensions** and **OpenMP**
- Implemented **Python-C** interface using Python/C API

Gitlet - Java, Python, JUnit, Git

April 2021

- Created features of **Git** including local and remote commands using **Java** and **Python**
- Wrote **JUnit** tests that tested all different scenarios of merging already-merged commits

SKILLS

- **Languages:** Python | Java | C | C++ | JavaScript | SQL | R | HTML | CSS | MATLAB
- **Frameworks/Technologies:** Node.js | Vue.js | Express.js | Mapbox | Git | AWS | Figma
- **Others:** Circuits/Hardware | TI LaunchPad | ML