

Matthew Xie

mkxie@berkeley.edu | (925) 997-1661

EDUCATION

University of California, Berkeley

Fall 2017— Spring 2021

BA, Computer Science

Coursework: The Structure and Interpretation of Computer Programs, Data Structures, Designing Information Systems and Devices, Foundations of Data Science

GPA: 3.61

SKILLS

Programming: Java, Python, cmd/Bash, SQL, HTML/CSS, Scheme

Software: Git, IntelliJ, Eclipse, Atom, Jupyter Notebook, Linux, Vim, Puppet, Ansible, Cron

Methodologies: Agile/Scrum

EXPERIENCE

High Performance Computing Intern—*Lawrence Livermore National Laboratory*

June 2018—August 2018

- Automated installation and configuration processes on Linux-based HPC clusters using Puppet and Ansible (cmd/Bash).
- Added functionality and new features to an existing python software suite for virtual machine automation and orchestration. Improved efficiency by eliminating the need to do tasks through a GUI (Python).

Research Intern—*UC Davis Dept. of Veterinary Medicine: Molecular Biosciences*

June 2016—July 2016

- Performed original research under Dr. Cecilia Giulivi concerning a selection of brain biomarkers to track skin cancer in mice.
- Assisted in formatting excel files and performing multivariate data analysis to reveal statistically significant variables.

Group Research Intern—*UC Irvine Dept. of Chemistry, UC Irvine Dept. of Mathematics*

June 2015—July 2015

- Conducted group research under Dr. Felix Grun and Dr. John Lowengrub concerning cancer cell angiogenesis using mathematical models with MATLAB.

PROJECTS

BearMaps (Java)

April 2018

- Provided the back end for a Google Maps-like application using Apache Maven and data from the OpenStreetMap Project.
- Included features such as zoom in/zoom out capabilities and finding shortest routes using A* search algorithm.

Build Your Own Game (Java)

Feb 2018—March 2018

- Formulated a pseudorandom world generation algorithm and implemented playability using keyboard input and mouse hovering. Additional features include saving and loading using Java Serialization.

Scheme Interpreter (Python, Scheme)

Oct 2017—Nov 2017

- Supported parsing a string of input and evaluating primitive procedures, user-defined procedures, special forms, and recursive programs.