
EDUCATION

University of California, Berkeley
Bachelor of Art, Computer Science
Master of Science, Computer Science

August 2016 - Present
GPA: 3.65

RELATED COURSEWORK

CS 70: Discrete Math and Probability Theory
CS 170: Eff. Alg. and Intractable Problems
CS 61C: Great Ideas in Computer Architecture
CS 188: Intro. to Artificial Intelligence
CS 162: Operating Systems and System Programming
CS 262: Advanced Topics in Computer Systems

CS 169: Software Engineering
CS 186: Intro. to Databases
CS 189: Intro. to Machine Learning
EECS 127: Opt. Models and App.
INFO 159: Natural Language Processing
DATA 100: Principles and Tech. of Data Sci.

SKILLS

Programming Languages	CPython, Java, HTML/CSS, Javascript, Markdown, SQL, C#, C
Python Packages	Numpy, Pandas, Matplotlib, PyTorch, Bokeh
Web App Frameworks	Django, Ruby on Rails, Jekyll, Flask
Software & Tools	MS Office, LaTeX, G Suite, Adobe Illustrator, Unity
Software Development	Test Automation, Docker, Bash Scripting, Git / SVN, Agile / Scrum

WORK EXPERIENCE

Freddie Mac, McLean
Financial Engineering Intern

May 2019-August 2019

- On-site internship under this government-sponsored enterprise.
- Project 1: Developed data visualizations (Heatmaps, Bar charts, 3D) using Python libraries Bokeh and Pandas. The visualization system is used for housing loan risk analysis where feature recognition and correlation analysis are essential part of the algorithms and model development.
- Project 2: Developed a Django web application that hosts the visuals of the data models. The web application is designed for direct and interactive access to the data by the users. The visualization is configurable by customizing axes and Django caching is deployed for high performance.

Audience1st
Software Developer

January 2019-May 2019

- Part of an academic project where groups of students are assigned to small businesses or startups to work on some of their features of their web application. Most of the projects were done in Rails. Involved in many Software Engineer practices, such as continuous integration and user stories.
- Worked on an application for Audience1st and implemented magic links and quality-of-life changes.

ACADEMIC PROJECTS

GamesCrafters
GamesmanPuzzles, Project Lead

2018-2021

- Created the GamesmanPuzzles Project, a simple Python interface to solve abstract Puzzle problems with high performance. Developed under the mentorship of Professor Dan Garcia.
- Taught a group of undergraduates the principles of software engineering.
- Extended Python with C to achieve high performance.
- Showcases the results using a Web API through Flask.

Member

- Member of a group devoted to perfectly solving two-player games aka combinatorial and computational game theory.

- Helped implement the Universal Web API to combine game solutions from the multiple GamesCrafters backends (ie GamesmanJava, GamesmanClassic). Specifically, worked on translating chess solutions from the Syzygy endgame tablebases from its public API.
- Researched using Decision Trees as a way of compressing key-value pairs into a series of feature decisions (i.e. number of pieces on the board, whether the second piece is an "X" or an "O").

DataBears, Berkeley
2019

Content Creator/TA

- Developed content for the SQLite lecture, which included a Jupyter Notebook lab, a Gradescope autograder environment, and a Introduction to Databases presentation.
- Content covered relational database, DMS, SQL queries and Pandas interactions.

TEACHING EXPERIENCE

Education Enrichment Center, Pleasanton
June 2018-August 2018

Math Teacher/SAT Content Creator

- Responsible for teaching adolescents math in preparation for the school year as well as developed a curriculum for SAT practice.

Dept. of Computer Science, UC Berkeley
2017-2021

Tutor

- CS 61A: Structure and Interpretation of Computer Programs, CS 61B: Data Structures

GSI

- CS 61C: Great Ideas in Computer Architecture

EXTRA-CURRICUCULAR

President of the Amador Valley Game Design Club in 2016.
 Publicity Chair of the Berkeley Unit 4 Hall Association in 2016-2017
 Programmer/Artist in the Game Design Club in 2019.

REFERENCES

James Naslund: <https://www.linkedin.com/in/jim-naslund-4031093/>
 Mason Chow: <https://www.linkedin.com/in/mason-chow-3502a89a/>
 Dan Garcia: <https://people.eecs.berkeley.edu/~ddgarcia/>