

Jeromy Lui

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OBJECTIVE

Interested in a software engineering internship position involving back-end development.

EDUCATION

University of California, Berkeley, CA | August 2015 - May 2019 (Expected)

Bachelor of Arts in Computer Science and Applied Mathematics, a third-year student with senior-standing

Awards and Honors: Sigma Alpha Pi: National Society of Leadership and Success

Relevant Coursework: CS186: Database Systems | CS168: Networking | CS188: Artificial Intelligence

CS170: Efficient Algorithms | CS61B: Data Structures

College GPA: 3.48

James Logan High School, Union City, CA | Fall 2011 - Spring 2015

TECHNICAL SKILLS

1. Programming Languages: Java, Python, C, SQL, Scheme (Lisp), Assembly (MIPS), HTML, and CSS.
2. Other Technologies: Windows, Unix (Mac), Linux (Ubuntu), Git, Logism, Android Studio, gdb, MS Office Suite.

PROJECTS

Enigma, Java

- Built a simulator for an Enigma machine that encodes/decodes messages.
- Includes the full algorithm used in WW2.
- Used polymorphism and inheritance to implement various rotors.
- Wrote own test cases and configuration files to detect bugs and raise exceptions.

Chat, Python

- Built an application that connects multiple clients over a network channel to communicate.
- Handled partial messages by buffering, allowing messages belonging to multiple clients to be interleaved.
- Learned about socket programming API and use, such as non-bloating sockets and client functionality.

Ataxx, Java

- Implemented a functional Ataxx board game and an AI to play the game with.
- Used the Minimax algorithm with alpha-beta pruning to program the AI's moves.
- Developed a GUI for the game that executes commands through mouse clicks.

Iterators and Join Algorithms, Java

- Implemented simple nested loop joins, page nested loop joins, block nested loop joins, and sort-merge join.
- Coded external merge sort, which sorts chunks that each fit in RAM then merges the sorted chunks together.

Pacman-AI, Python

- Incorporated Bayesian Learning, Inference, Update, along with Q-Learning tactics to build an intelligent agent.
- Adapted classic search algorithms including iterative deepening, A* search, BFS, and DFS to optimize searches.
- Worked with least-squares regression, stochastic gradient descent, as well as binary classification.

EXPERIENCE

University of California, Berkeley | CS61B Lab Assistant

Summer 2016 - Fall 2017

- Attend office hours and lab section as a 6 hr/wk lab assistant.
- Explain course material to students and answer their questions.
- Check students' labs and homework for correctness.

University of California, Berkeley | ANOVA Site Leader

Fall 2016 - Spring 2017

- Visit Berkeley High School weekly to teach high schoolers Java concepts/syntax.
- Lead the classroom in instruction and manage 2-3 other teaching assistants.
- Assist students with programming questions and assigned work.