Leo Tsunghan Lee

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EDUCATION

UC Santa Cruz, Jack Baskin School of Engineering — 2020-2023

B.S. in Computer Science **GPA:** 3.83

Relevant Coursework — Discrete Math, Computer Systems and Assembly, Sustainability Laboratory Tools, C Programming, 3D Modeling, Introduction to Data Structures and Algorithms, Introduction to Computer Networks, Computer Architecture, Principles of Computer Systems Design

EXPERIENCE

Reader | Lab Grader — December 2021 - Present
Santa Cruz, CA

- Writes Bash scripts to streamline the process of pulling student repos from Gitlab and commit id from Canvas
- Writes Python program to wrap C functions with ctypes library for intensive and thorough testing of the assignments

Tutor | Group Tutor — March 2021 - March 2022
Santa Cruz, CA

- Holds Office Hours for up to 11 hours each week to help students with their CS labs and class materials
- Breaks down labs into objectives and guide students to online manuals or videos to improve their understanding of the lab

RootTech | Co-Founder & Java Instructor — July 2020 - August 2020
Irvine, CA

- Offered free Computer Science courses for 200+ High School students in Orange County
- Developed curriculums that prepares students for AP Computer Science A in a span of 2 weeks

PROJECTS

HTTP Server — Spring 2022, C

- A HTTP server that can handle cURL requests of GET, PUT, and APPEND with any files
- Multithreaded server using pthread and no data race
- Fully modularized code to support better debugging and better coding practice

cURL Replica — Winter 2022, Python

- A replication of cURL program in Python - output page content and status code from the http GET request
- Utilized argparse, socket, and Regular Expression to parse URLs from command line
- Write out to a separate .csv file for better visualization of the status code

Huffman Coding — Fall 2021, C

- Utilized low level sys calls to read in content of fixed size from any file and compressed it using Huffman Coding
- Implemented PriorityQueue using Min Heap and built Huffman tree using it
- Implemented Heapify function to sort the Huffman tree
- Covers all characters from ASCII and extended ASCII, all 256 characters

Traveling Salesman — Fall 2021, C

- Utilized varies data structures such as multidimensional matrices and stacks) to solve Traveling Salesman Problem
- Implemented Depth First Search to calculate the shortest path between the nodes and accurately output the shortest path based on the weight
- Can handle at least 26 vertices

SKILLS

- Languages: Java, Python, C, C++, MIPS, TypeScript, RISC-V, React
- Tools: Unix, Git, IntelliJ, Android Studio, PyCharm, Clang, Blender, Qt, Makefile, Wireshark, VSCode