Meng-Hui (Anna) Chou

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EDUCATION

University of California, Berkeley   Berkeley, CA
B.S. Electrical Engineering & Computer Science – GPA: 3.46   **Expected Graduation: Fall 2022**

Foothill College   Los Altos Hills, CA
AS-T. Engineering – GPA: 3.97   Fall 2018 - Spring 2020

Relevant coursework:

Computer Architecture, Microelectronic Circuits, IC Devices Physics, Data Structure and Algorithm, Discrete Math and Probability, Software Design in C++, Modern Physics.

EXPERIENCE

Junior Tutor   August 2021- Current
UC Berkeley Computer Science Mentors, Berkeley, CA
- Taught 1-on-6 in-person weekly sections in EECS 16A: Devices and Systems I.
- Designed 2 extra weekly problems in fields of circuits, linear algebra, and cross-correlation.
- Earned 87% satisfaction in teaching from students by the end of fall 2021.

Training Developer   June - July 2021
Google Cloud Study Jams 2021, Taipei, Taiwan
- Performed foundational data, ML, and AI tasks on Cloud Speech AI, Dataprep, and Natural Language API.
- Learned app development and infrastructure on Google Cloud Platform (GCP).
- Required high-level understanding in SQL and Linux syntax to manage data-based tables in Cloud SQL and Big Query.

Science Tutor   April 2019 - June 2020
EOPS at Foothill College, Los Altos Hills, CA
- Taught 1-on-1 in-person weekly sections in subjects of pre/calculus and general chemistry.
- Awarded excellent teaching in fall 2019.

PROJECTS

C-language-version NumPy, UC Berkeley   Fall 2021
- Built NumPy in C language with matrix operations such as add, multiplication, and power.
- Developed an algorithm to optimize matrix operations by SIMD, OpenMP, paralleling, and loop unrolling.
- Achieved 878.5 speed-up rate in power of a matrix and 55.1 speed-up rate in matrix multiplication.

32-bit RISC-V Based CPU, UC Berkeley   Fall 2021
- Designed logic circuits for 32-bit RISC-V based CPU with 2-stage pipeline by logicism.
- Streamlined compiling process of RISC-V programs by 37 supported assembly instructions such as add, sw, lw, and jal.
- Achieved 99.5% coverage rate with 7 files in type of circ.

Voice-controlled Robot Car, UC Berkeley   Spring 2021
- Designed a feedback control system and low-pass filters for motors and mic-boards respectively.
- Achieved 92.2% accuracy in distinguishing 4 words from human-voice commands by applying PCA to voice sensors.
- Represented my team in course wide competition to demo the final car project.

Gitlet, UC Berkeley   Spring 2021
- Built a version-control system simulating GitHub from scratch with 1500+ lines of Java.
- Implemented a customized functionality *find* to search keywords provided by users in all commits' messages.
- Supported essential git commands such as add, commit, checkout, log, branch, and merge.

Avatar-activated Maze Game, UC Berkeley   Spring 2021
- Developed an algorithm to generate random mazes with rooms and hallways.
- Built a user interface for the game's menu and keyboard controls to interact with the program.
- Built a data structure for reloading and visually replaying the game that users saved in the last play.

SKILL HIGHLIGHTS

Programing Languages: C++, Python, Scheme, SQL, C#, C, Arduino, Java, Markdown, HTML, RISC-V.

Others: Mathematica, Git, Google Cloud Platform (GCP), Data Structures, LaTeX, Logicism, Cadence, Sentaurus, TCAD.

AWARDS & HONORS

- **Scholar** of National Science Foundation in S-STEM   2021
- **Recipient** of Academic Achievement Scholarship   2020
- **Recipient** of Foothill Anita Manwani-Bhagat & Arjun Bhagat Scholarship   2020
- **Recipient** of Jason Whitten Memorial Scholarship   2020
- **Recipient** of Prip Memorial Scholarship - Merit   2020
- **Recipient** of National Science Foundation Scholarship   2019