Meng-Hui (Anna) Chou

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EDUCATION

University of California, Berkeley — Berkeley, CA
B.S. Electrical Engineering & Computer Science – GPA: 3.38 — **Expected Graduation: Fall 2022**

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

Relevant coursework:
Computer Architecture, Digital Circuits Design, Field-Programmable Gate Array (FPGA) Lab, Microelectronic Circuits, IC Devices Physics, Software Design in C++, Data Structure and Algorithm, Signals and Systems.

HIGHLIGHTED 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-Activated 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-Controlled Maze Game, UC Berkeley — Spring 2021
- Developed an algorithm to generate random mazes with rooms and hallways.
- Designed 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.

EXPERIENCE

CS61C Course Tutor — January 2022 - Current
UC Berkeley EECS Department, Berkeley, CA
- Assisted 40+ students with lab coursework in field of computer architecture.
- Assisted students in office hours with homework, projects, labs, and weekly contents from lectures.
- Co-conducted review sections and project workshops for 300+ students.

Content 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 (Circuits and Linear Algebra).
- Designed weekly problem sets in fields of circuits, linear algebra, and cross-correlation for 100+ students.
- Conducted 10+ tutor interviews semesterly and selected prospective tutors for a semester.
- Conducted review sections for 200+ students monthly and concept drop-in sections biweekly.

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).
- Applied high-level understanding in SQL and Linux syntax to manage data-based tables in Cloud SQL and Big Query.

TECHNICAL SKILLS

Interests: Computer Architecture, Digital Design, Devices Physics.
Programing Languages: C++, Python, Scheme, SQL, C#, C, Java, Markdown, HTML, RISC-V, Verilog, RTL.
Others: Mathematica, Git, Google Cloud Platform (GCP), Data Structures, LaTeX, Logicism, Cadence, Sentaurus, TCAD.