

Yifan Liu

5302203004 | bmmliu@ucdavis.edu
1880 COWELL BLVD APT 145 | <https://github.com/bmmliu>

EDUCATION

University of California, Davis

Sep 2017 - Jun 2021

Junior Computer Science Engineering

Davis

- GPA: 3.522 (Engineering)
- Relevant Coursework: Machine Dependent Programming, Programming&Prob Solving, Software Development, Data Structures, Discrete Math for CS, Computer Architecture, Algorithm Design & Anyls, Circuits

PROFESSIONAL EXPERIENCE

Research Assistant

Sep 2019 - Present

- Currently working with professor Daisuke Sato at UC Davis on pharmacology and going to give a speech on the URC2020 in April.
- Design programs that transform research outcomes into visualizing graphs. Like the visualization of the "Hodgkin-Huxley" model and "Cardiac Alternans" My programs also have the ability to generate statistical data based on input functions or variables, which can help researchers analyze experiments more efficiently and objectively(Python and Matlab).
- Design program to complete the mathematical analysis of the aole of heterogeneous distribution of excitable and non-excitable cells on early afterdepolarizations(Matlab and C++).
- investigated how tissue geometry affects action potential wave propagation using physiologically detailed computer models(C++).

Personal Coding Experience

Sep 2018 - Jun 2019

- Developed 2-D games like Battleship, Connect4, Turn-based games, and Board Games by (C/C++).
- Developed a UNIX-like shell operating system, which can accomplish most operations that UNIX can, including pipe, output redirection, and extra. Besides, this shell including a built-in Zip and Unzip programs implemented based on "black-red-tree." This program can compress a book into 40% of its original size less in one second(C).
- Developed the Artificial Intelligence Mountain-Shortest-Path-finding program based on improved A* algorithm and cost function. Perform 70% better than the classic BFS or Dijkstra search(Java).
- Developed the Artificial Intelligence Connect4 Player based on minimax algorithm and alpha-beta pruning, Which can beat Normal Human player (Java).

LEADERSHIP EXPERIENCE

Head of Project Manager

Feb 2018 - Oct 2019

Chinese Undergraduate Student Union

Davis

- Plan student activities and entertainment
- Communicate with School managers for space reservation.
- Organize, purchase and make property for each event.
- Write proposals for upcoming events like the Fall Quarter Welcome Party, Spring Festival Celebration 2020.
- Technical assistance during events time. Control the main computer, sound, projector, microphone and power amplifier during events.

SKILLS, CERTIFICATIONS & OTHERS

- **Skills:** C, C++, Python, Assembly, Matlab
- **Certifications:** TOEFL 104
- **Languages:** English(Fluent), Chinese (Native)
- **Activities:** Head of Project Management in College Student Organization
- **Interests:** Cutting-edge technologies, Coding, Esports, Cats