Thien Le

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EDUCATION

University of California, Berkeley · Overall GPA: 4.00   **Berkeley, CA**
Bachelor of Science, Electrical Engineering and Computer Science · IEEE / URobotics at Berkeley   *Class of 2025*
· Past Courses: Structure and Interpretation of Computer Programs, Designing Information Systems and Devices
· Current Courses: Discrete Mathematics, Probability Theory, Data Structures

EXPERIENCE

[Underwater Robotics at Berkeley](#)   **Berkeley, CA**
Robotics Software Engineer   *September 2021 · Present*
· Collaborated with other engineers design a machine vision system that would allow an underwater robot to autonomously clear tasks
· Utilized Python, OpenCV 4.0, and Machine Learning to accurately process and interpret in real time images taken by an underwater camera

Strahlbright Inc.   **Livermore, CA**
Python Developer Intern   *July 2021 · August 2021*
· Collaborated with other developers to design a bidet centered around a Raspberry Pi that can be remotely controlled using an Android Device
· Employed problem-solving skills and hardware knowledge to optimize live streaming from a Raspberry Pi camera using OpenCV 4.0 and Socket
· Structured internal systems comprising network communication, GPIO configuration, and general measurement built in Python

PROJECTS

[Python Parser](#)   *December 2021*
· Implemented a robust packrat parser for Python's parsing expression grammar (PEG) that organizes input into abstract syntax trees in linear time using C++
· Applied a test-driven approach using Google's C++ Unit Testing Framework to streamline development and ensure higher quality code

[Homemade Jump King](#)   *September 2020*
· Complete recreation of the popular indie game JumpKing that runs on Windows and is built in Python using the Pygame module
· Applied laws of physics and differential calculus to simulate accurate physical behavior and collisions in addition to seamless animations
· Utilized threading to manipulate various assets (sprites, backgrounds, music/sfx) in parallel and optimize framerate.

[Pathfinding Visualizer](#)   *July 2020*
· Interactive GUI that visualizes the A*, Djikstras, and Jump Point Search pathfinding algorithms over an NxN grid using Pygame
· Self-taught Pygame and the aforesaid pathfinding algorithms to be implemented efficiently
· Designed and engineered an expandable framework that would allow for further algorithms to be simulated

LEADERSHIP EXPERIENCE

[Space and Engineering Academy](#)   **Tracy, CA**
Highschool Freshman Bootcamp Leader   *July 2020 · August 2020*
· Provided leadership to coordinate and plan out events over a two-week bootcamp within the STEM-focused high school program
· Led groups of freshmen in carrying out STEM-oriented tasks, such designing a moon base and coding Scratch games

SKILLS

Programming: Python · C++ · Java · Bash/Shell · SQL · Scheme
Tools: Microsoft Windows · Unix (Ubuntu) · Git · NumPy · OpenCV
Other: LaTeX · Vietnamese (conversational)