Zeyu Li

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Education

University of Florida Aug. 2024 – May 2028
Bachelor of Science in Computer Engineering ***GPA: 4.0***
Related Courses:
Data Structure and Algorithms, Digital Logic and Design, Programming Fundamentals, Computer Organization

Experience

Machine Learning Researcher May 2025 – Jul. 2025
Texas A&M International University *Laredo,TX*

- Conducted NSF-funded research on 3D Wireless Sensor Networks with machine learning algorithms for sensor mobility using **PyTorch and MATLAB** to generate geometric tessallation.
- Simulated and analyzed 500 mobile nodes under dynamic scheduling movement in spherical space.
- Improved sensor network energy efficiency and robustness by 28%, extending coverage maintenance and network lifetime compared to conventional methods.

Data Analyst Jun. 2023 – Jul. 2023
Florida State University *Tallahassee,FL*

- Researched biomedical treatments across 15+ species, quantifying inter-species variation in response rates by 30%.
- Implemented **R** for statistical modeling and visualization, reducing runtime by 40% and improving reproducibility.
- Developed hands-on laboratory experiences with high-speed centrifuge and Rotary evaporator.

Online Tutor Mar. 2023 – Present
Wyzant, Inc. *Chicago, IL*

- Mentored over 50 K-12 and college students learn Programming languages and debug online. Projects include rock-paper-scissors game, scientific calculator, class attendance simulator, and number-guessing game.
- Taught STEM/Language related courses including Calculus, Physics 1/2, SAT, and AP courses.

Projects

Minesweeper | *C++, SFML* Apr. 2025 – May 2025

- Developed multimedia frameworks for graphics and input handling to rebuild Minesweeper, including tile recursive reveal, flood-fill algorithm, and leaderboard implementation.
- Used **Object-oriented programming** to create states for different tiles and a UI page for numbers, blank cells, flags, and mines in a clear 50*50 grid.

Automobile Line Detection System | *Python, OpenCV, Pandas, Numpy, Matplotlib* Mar. 2024 – Sep. 2024

- Developed a computer vision pipeline for processing autonomous vehicle camera feeds, enabling real-time detection of lane markings under different weather conditions, achieving 92% detection accuracy across 500+ test scenarios.
- Implemented **OpenCV** algorithms for frame-by-frame pixel-feature extraction, reducing false positives by 25% compared to baseline methods.

Wheels Robotic Car | *Python, Flask, HTML, CSS, SQL, Linux* Sep. 2023 – Jan. 2024

- Implemented real-time robot communications using Python and Linux networking commands, enabling sub-second response latency (<200 ms) for ultrasonic sensors and movement control.
- Designed and deployed a Flask web interface with **HTML/CSS**, supporting 100+ user sessions with **SQLite-based** authentication, session management, and a real-time control panel, improving navigation accuracy by 25% in obstacle-avoidance tests.

Technical Skills

Languages: Python, C/C++, Flask, SQL, HTML/CSS, Javascript, MATLAB, R, C#
Developer Tools/Frameworks: Git, CLion, Visual Studio, React, Node.js, PyCharm, Logisim, Quartus
Libraries: STL, pandas, NumPy, OpenCV, Matplotlib, PyTorch, SFML

Extracurriculars

Clubs: Computing Student Union, Open Source Club, Software Engineering Club, Gator For Music Club