

Xixiao Pan

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1835 Shirley Lane, Ann Arbor, MI, USA

EDUCATION

University of Michigan, Ann Arbor, MI

CGPA: 3.84/4.00 [Sep. 2023 - May. 2025]

Bachelor of Science in Engineering, Data Science, College of Engineering

Shanghai Jiao Tong University, Shanghai, China

CGPA: 3.62/4.00 [Sep. 2021 - July 2025]

Bachelor of Science in Engineering, Electronic and Computer Engineering, UIM-SJTU Joint Institute

SKILLS

Programming: C++, C#, Python, Unity, UE5, R, Matlab, SQL, Github Usage, Agile

Framework: PyTorch, scikit-learn, React, Flask

EXPERIENCE

Software Development Engineer Intern - AMD

[May. 2024 - Present]

CoreSW, AMD, Shanghai, China

- Deployed **deep learning** models including diffusions and LLMs on Windows platform.
- Exported as ONNX models to generally apply on all platforms.
- Improved Stable Diffusion 3 three times faster by transformer optimization and quantization.

Research Intern

[Jan. 2024 - Present]

Paul Green, UMTRI, Multidisciplinary Design Program, University of Michigan

- Built an easy-to-use driving simulator platform with immersive environments through the creative use of **RoadRunner**, **Carla Unreal Engine 4** and simple hardware. Implement the I94 highway.

Research Student

[June 2022 - Apr. 2023]

Qinya Li, Shanghai Jiao Tong University, China

- Implemented the deep residual network (**ResNet-50**) and Very Deep Convolutional Networks (**VGG**) by **Pytorch**. Assisted in reproducing the self-supervised learning **SimCLR** model and **MoCo** model for unsupervised multimedia data quality assessment technology.

PROJECTS

Scalable Web Search Engine: Similar to Google - Python

[Mar. 2024 - Apr. 2024]

- Developed a robust search website, allowing users to input queries and receive top relevant results.
- Employed **information retrieval** techniques including text analysis (tf-idf) and link analysis (PageRank) to calculate scores for each document. Implemented parallel data processing with **MapReduce**.

Full-stack Web Development: Simulate Instagram - Python, React, Flask, SQL

[Jan. 2024 - Mar. 2024]

- Created a platform with features including login and logout, posts, comments, likes, and followers.
- Utilized **SQL** for database management and the **REST API** to facilitate communication with the server.
- Leveraged **Flask** and **React** to develop both client-side and server-side dynamic pages.

Database Management: Online Banking System Simulator - C++

[Oct. 2023 - Nov. 2023]

- Built a real-time bank **database** with a query system for transaction history and revenue analysis.
- Designed **algorithms** for fraud detection, transaction scheduling, and fee calculation and **data structures** (priority queue, hash tables) for transaction processing and user management

Machine Learning Application: Predicting Depression Condition - Python, R

[Oct. 2023 - Dec. 2023]

- Collected, pre-processed data from CDC to predict depression by biochemical and social conditions.
- Implemented **Bootstrap**, **SVM**, **Logistic Regression**, **Random Forest**, **KNN** to train and test the model.

LEADERSHIP

Shanghai Orientation Leaders of Pre-Departure Orientation Events - University of Michigan

[June 2024]

Teaching Assistant - Shanghai Jiao Tong University

[Feb. 2023 - July 2023]

President of Nanyang Dance Association - Shanghai Jiao Tong University

[Sep. 2022 - Aug. 2023]

AWARDS

Shanghai Jiao Tong University Undergraduate Excellent Scholarship

[2021 - 2022]