

Jingyan (Menako) Zhang

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I am interested in generative AI, deep learning, and data analytics. I am proficient in Python and C++.

Education

University of Michigan, Ann Arbor

Master's in Applied Statistics

Sep. 2023 - Present

Michigan, U.S.

- GPA: 3.9
- Courses: Computational Methods in Statistics and Data Science (A+), Intro to Operating Systems

Shanghai Jiao Tong University

Bachelor of Electrical and Computer Engineering, Minor in Data Science

Sep. 2020 - Aug. 2024

Shanghai, China

- Courses: Data Structures and Algorithms (A)

Work Experience

Performance Engineer Intern

NVIDIA

May 2024 - Aug. 2024

Shanghai, China

- Developed **Fast API server** with Milvus hybrid search enabled, interacting with **vector database**.
- Built **Retrieval-Augmented Generation (RAG)** agents with large language models, surpassing Perplexity and ChatGPT in searching social media discussions.
- Trained **YOLOv8 model** to enhance in-game object detection for AI gaming agents, improving UI detection accuracy by 10.8%.
- Developed and executed **PyTest unittests** to check class functionality and integrated them using **abstract factory** design patterns.

Software Engineer Intern

CREATE-X

Sep. 2022 - May 2023

Georgia, U.S. Remote, Unpaid

- Developed image processing using Python and **High-Level Shading Language (HLSL)** for AI Embedded Media Production Software
- Optimized **user experience design** using CSS and test adaptability across various devices and systems (Windows, Linux).

Video Game Quality Test Engineer

miHoYo

Jan. 2022 - Jun. 2022

Shanghai, China

- Evaluated upcoming storylines and game content, ensuring readiness and coherence before public launch.
- Enhanced narrative and artistic elements by providing detailed, constructive feedback on game plots and environmental aesthetics.
- Streamlined development processes through active collaboration with the development team, identifying bugs, proposing enhancements, and confirming resolutions, thereby elevating the overall quality of the gaming experience.

Projects

Dashboard with Google Cloud Platform (GCP) Implementation *Core Developer*

University of Michigan, Ann Arbor

Apr. 2024 - May 2024

Michigan, U.S.

- Developed web structure and figures using **Plotly**, creating visually appealing dashboards.
- Implemented interactive tools like dropdown selections and slider bars for **dynamic data manipulation**.
- Embedded trained models into the web application for advanced **real-time data analysis**.

STATS 503 Final Project Winter *Kaggle Competitor*

University of Michigan, Ann Arbor

Mar. 2024 - May 2024

Michigan, U.S.

- Developed and fine-tuned **convolutional neural networks (CNN)** for accurate predictions.
- Combined **Lasso and Ridge regression** to enhance model performance.
- Led the team to achieve second place out of 58 teams and 108 participants.

Technical Skills

Core Competencies: Machine Learning, Data Analysis, Predictive Modeling

Tools and Libraries: PyTorch, FastAPI, Scikit-Learn, TensorFlow, Jupyter

Programming Languages: Python, C++, R, SQL, JavaScript