

Jingjing Zhu

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Education

- University of California, San Deigo**, MS in Data Science Sept 2024 – June 2026
Coursework: Machine Learning, Natural Language Processing, Statistical model
- University of Michigan, Ann Arbor**, B.E. in Computer Science Aug 2022 – May 2024
Coursework: Data Structures and Algorithms, Web Systems, Database Management Systems, Artificial Intelligence, Computer Vision, Computer Security
- Shanghai Jiaotong University**, B.S. in Electrical and Computer Engineering Sept 2020 – Aug 2024
Coursework: Electronic Circuits, Signals and Systems, Logic Design, Probabilistic Methods in Engineering

Experience

- Data Engineer Intern**, Industrial and Commercial Bank of China(ICBC) – Shanghai, China June 2024 – Aug 2024
- Collaborated with Tsinghua University research teams to develop federated learning algorithms for detecting suspicious cross-border transactions, enhancing fraud detection efficiency.
 - Utilized **Python** and **SQL** to analyze financial data metrics, calculating fund yields and investor returns, which improved fund performance insights for investors.
- Solution Architect Intern**, Alibaba Cloud (Aliyun) – Hangzhou, China July 2023 – Aug 2023
- Gained **Alibaba Cloud Professional Certification** and developed expertise in cloud infrastructure, data management, and security protocols. Participated in **multi-cloud architecture designs**, improving resource efficiency, and collaborated with cross-functional teams to implement best practices across platforms for data security.
- Data Analyst Intern**, Zhejiang Yuce Technology Company – Hangzhou, China May 2023 – June 2023
- Utilized **PostgreSQL** to perform data analysis on large datasets to extract trends, increasing business insight accuracy by 20%. Participated in the client data warehouse design, including data collection, cleansing, and transformation.
 - Communicated with clients to understand business requirements, ensuring the alignment of solutions with business goals, and managed end-to-end solution implementations.

Projects

- Music Transcription App – Note-X** github.com/Note-X
- Developed a mobile Android app offering real-time music transcription services. Utilized **Python**, **aubio** for pitch detection, and **Django REST Framework** to handle music file uploads and audio conversion, enabling robust transcription services.
 - Designed an intuitive front-end using **Android Studio** and **Kotlin**, **Java**, integrating views for file uploads and displaying sheet music, with options to download in PNG or PDF format.
- VR Educational Game – DinoSnap** [DinoSnap Web](#)
- Programmed lifelike dinosaur interactions using **C#** in **Unreal Engine**, creating AI-driven behaviors and achieving a 25% increase in player engagement through realistic interactions. Incorporated physics-based interactions to simulate realistic Mesozoic environments.
- AR Athletic Game – GardenerGo** [GardenerGo Web](#)
- Developed an AR-based interactive experience using **Unity** and **Mapbox SDK**, enabling real-time map integration for environmental interaction. Created scalable and immersive gameplay features using **C#** scripting and implemented a roulette mini-game for bonus rewards.
- High-Resolution Image Recovery – VisionRefine** github.com/EECS442SR
- Deployed advanced image recovery techniques using **CNN**, **guided diffusion models**, and **transformer networks** to restore low-resolution facial images.
- Website System Demo – Insta485**
- Developed an Instagram-like web platform using **Python**, **Flask**, **JavaScript**, and **React**, supporting real-time user interactions and media uploads. Built RESTful APIs with **Flask** to handle user authentication etc., ensuring secure and efficient communication between server and client. Integrated dynamic client-side pages with **AJAX**.

Technologies

Languages: Python, C++, C, SQL, Java, C#, JavaScript, HTML, Matlab
Frameworks: TensorFlow, PyTorch, Django, Flask
Tools and Other Skills: Unity, Unreal, Visual Studio, VS Code, CLion, GitHub, Video Editing, VR&AR Development