Jingze (Jacob) Ma

213-662-0232 | jingze.ma@yale.edu | New York, NY | [Website](#) | [LinkedIn](#)

EDUCATION

Yale University, New Haven, CT   Expected May 2025
M.S. in Computer Science
Selected coursework: Building Distributed Systems, Database System, Full Stack Web Programming (IP), User Interface (IP)

University of Southern California, Los Angeles, California   May 2024
B.S./B.A., Double Major: Computer Science (Games); Computational and Applied Mathematics
Selected coursework: Game Engines, Machine Learning, Algorithms, Data Structures, Linear Algebra, Discrete Methods

SKILLS

Programming Languages: C++, C#, C, Java, Go, SQL, JavaScript, HTML/CSS, Python
Tools and Frameworks: PyTorch, Spring Boot, React, MySQL, SQLite, AWS, GitHub, gtest, CMake, Docker, Firebase

RESEARCH AND DEVELOPMENT EXPERIENCE

Software Engineer Volunteer, **Silicon Valley Leadership Community**, Remote, USA   July 2024 – Oct 2024
- Developed and maintained the SVLC website ([Link](#)) using React
- Conducted a comprehensive analysis comparing third-party databases, including Firebase and Airtable, to inform database selection based on functionality, scalability, and pricing, and reported to lead full stack engineer to ensure fast but affordable options
- Builiding the SVLC forum, enabling users to post text, video, and audio content, integrating React for the frontend and Firebase for real-time data management and media storage

Software Engineer Intern, **eBaoTech International, Ltd**., Shanghai, China   June 2023 – Aug 2023
- Designed a pipeline for programming language translation integrated into the InsureMO platform by fine-tuning large language models (LLMs), including ChatGLM v2
- Utilized PyTorch and Hugging Face's Transformer model while fine-tuning LLM models
- Constructed a new database concerning insurance data and operated data preprocessing, including quality filtering and sentence-level deduplication to P-Tuning
- Trained and deployed models on predicting premium of pets using AWS SageMaker and S3 Bucket

Software Engineer Intern, **nPlace, Ltd.**, Shanghai, China   June 2022 – Aug 2022
- Developed adaptive downsampling for the data sensor converter, reducing main thread pressure and achieving stable refresh densities, with peak pixels per frame scan stabilizing at less than 20k and averaging below 10k, without significant loss of accuracy
- Implemented and presented the ground truth version and float version of Bresenham's algorithm in 3D with fixes on the error of Bresenham to the senior engineers
- Assisted in the publication of Zaichang, a real-time 3D scanning modeling software in App Store

SELECTED PROJECT EXPERIENCE

Gameplay and AI engineer, **Lake Minnewaska ([Steam](#))**, Los Angeles, California   Jun 2023 – May 2024
- Collaborated with a team of 30 to develop a fishing simulator game in Unity
- Designed and implemented the fishing system, including casting and reeling mechanics using state machine pipelines
- Built game AI for fish behavior and NPC interactions using behavior trees and pathfinding algorithms
- Developed key gameplay features such as the fishing journal, cutscenes, and user interface elements

Full Stack Engineer, **Splitwise-Like Web Application**, Los Angeles, California   Aug 2022 – Dec 2022
- Created the front-end application using Bootstrap templates and HTML/CSS
- Developed backend APIs using Java Spring Boot and MySQL, deployed on AWS EC2 to support full CRUD operations for the application.

Student Researcher, **Determine the Influence of a Movie Using Machine Learning**, Remote   May 2020 – Aug 2020
- Analyzed 30k reviews of 1k+ movies using LSTM performing sentiment analysis, to identify the most significant factors that determine the influence of a movie.
- Published the paper at 2020 2nd International Conference on Machine Learning ([Link](#))