Jingman (Michelle) Wang

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EDUCATION

Johns Hopkins University — Baltimore, MD
Bachelor of Science — Expected May 2025

- Majors: Computer Science, Cognitive Science
- GPA: 3.93
- Programming Languages: Java | Python | C | C++ | Javascript | Typescript | MATLAB | SQL
- Frameworks & Tools: Unity | Unreal Engine | React | HTML | CSS | Node.js | Firebase | MongoDB | Docker

EXPERIENCE

DearYou Health — January 2024- Present
Software Engineer — Washington, DC

- Led the development of a mental health support app as the leader of the tech group, utilizing **React Native** to ensure cross-platform compatibility for optimal user experience across devices. Managed project organization and codebase maintenance using **Git** version control system.
- Implemented an AI-driven algorithm for matching students with suitable counselors/therapists, leveraging **TensorFlow** for model training and optimization, involving preprocessing, **neural network design**, and parameter fine-tuning for high accuracy and efficiency.
- Managed secure user authentication and data storage through **Firebase**, while integrating third-party **APIs** to verify therapist credentials and authentication, enhancing the app's functionality and ensuring user safety.

Quest2Learn — January 2023 - October 2023
Software and UI/UX Engineer — Baltimore, MD

- Developed immersive **AR** experience using **Unity** and **React3Fiber**, leveraging hyperrealistic 3D model construction and interactive features across 7 modules.
- Collaborated with CUHK University in Hong Kong to develop user-centered modules, leveraging **React** for frontend development and Unity for interactive simulations. Resulted in a 15% improvement in user satisfaction.
- Conducted **unit, system, and usability testing**, alongside user interviews, to gather insights and ensure comprehensive app functionality, optimization, and user experience refinement.

NOTABLE PROJECTS

JHU Delineo — August 2023 - Present

- Designed and integrated features in the new **algorithm** enabling the retrieval of disease information and real-time tracking of disease timelines for newly infected individuals, enhancing the accuracy and reducing the simulation time by 20%.
- Collaborated with **AWS** to integrate Mass Crowd AI for simulating crowd movement and infection patterns in airports on **UE5**, enhancing disease spread modeling accuracy.
- Developed the "Intervention Manager" module, allowing users to define and apply interventions within simulations, utilizing **Python** for backend logic and **React** for frontend implementation.

JHU CBID VectorCam — June 2023 - August 2023

- Developed an Android app for vector surveillance, providing vector control in malaria prevention and elimination in sub-Saharan Africa. Leveraged **Java** and **Android Studio** to improve mosquito classification accuracy.
- Engineered a robust **Firebase**-based data transmission system, ensuring secure and efficient transfer of user-generated mosquito data to the cloud, with offline functionality for data integrity in challenging conditions.
- Implemented advanced image processing and **computer vision** technique (YOLO - you only look once) for rapid mosquito analysis, resulting in a remarkable 40% accuracy improvement.

NLP Tagging Project

- Attained over 95% accuracy in tag prediction utilizing taggers based on **HMM** and **CRF**, incorporating a biRNN for context feature extraction.

NOTABLE REWARDS

- Received the Singhal Family Entrepreneurship Award and the 2023 Dean’s Design Award, securing $20,000 in funding for Quest2Learn.
- Earned a presentation slot at the 2022 ASCEND conference with my proposal with Nathaniel Gordon, titled "Spacecraft Diagnostic Generation from Remote Sensing for OSAM Mission”.