Jingman (Michelle) Wang

240-659-9440 | jwang408@jhu.edu | LinkedIn | Website

EDUCATION

Johns Hopkins University Baltimore, MD
Combined Bachelor of Science & Master of Science Expected May 2025
Majors: Computer Science, Cognitive Science | **GPA**: 3.92

SKILLS

Frontend: JavaScript (ES6+), TypeScript, GraphQL, React, Vue, Angular, npm, HTML5, CSS3, Figma
Backend: Java, Python, C++, Node.js, Spring Boot, REST APIs
Databases: SQL (MySQL, PostgreSQL), NoSQL (MongoDB, Redis)
Cloud & DevOps: AWS (Lambda, S3, API Gateway, EC2), Git, Docker, CI/CD
Testing: JUnit, Mockito, Sinon, Selenium, Pytest
Machine Learning & Data Science: TensorFlow, PyTorch, Matplotlib, Power BI, Tableau, NumPy, Pandas, Scikit-learn, MATLAB, R, Random Forest, SVM, K-means, PCA

WORK EXPERIENCE

Full-stack Engineer Intern 01/2025 - Present
Ruvos Remote

- Automated data retrieval and integration processes by developing **Python-based web crawlers** and utilizing API calls (**Postman**) to fetch and map health datasets, reducing manual data handling by 40%.
- Conducted testing using **Selenium** and **Pytest**, increasing test coverage by 30% and reducing production bugs by 20%.
- Utilized **Jira** for agile project management, bug tracking, and sprint planning, leveraging Confluence for documentation.

Strategist and Software Engineer Intern 05/2024 - 08/2024
Hull Street Energy Bethesda, MD

- Built and launched custom web apps **(Dash, Flask)** and an **Excel plugin** using xlwings, after creating a scalable **SQL** database for gas and power markets. Deployed using **Docker** and **AWS EC2**, enabling real-time data visualization, reducing manual workflows by 40%, and supporting strategic decisions.
- Optimized power plant operations by leveraging statistical modeling and frameworks like NumPy, SciPy, and Pyomo to analyze 17 variables, enhancing operational efficiency by 3%.
- Built a customized LLM assistant using **LangChain** and **Hugging Face Transformers**, integrated with a proprietary database. Enhanced analyst productivity by 30% and reduced research time by 40%, driving innovation in energy market analysis.

Software Engineer 01/2024 - 05/2024
DearYou Health Washington, DC

- Led a team of 6 developers to build a **React** and **TypeScript** app with Firebase authentication and **REST APIs** to verify psychologist identities. Designed a calendar system for managing appointments, real-time push notifications using **Firebase Cloud Messaging**, and a chat feature powered by **WebSockets** for seamless communication, styling using **Tailwind CSS**.
- Developed a **TensorFlow**-based matching algorithm, delivering 90% accuracy in student-counselor matching and reducing response time by 20%, ensuring high overall performance and user satisfaction.

NOTABLE PROJECTS

Delineo 08/2023 - 12/2024

- Collaborated with AWS to integrate **MassEntity** Framework in **Unreal Engine 5** for simulating crowd movement and infection patterns in airports. Leveraged **MassAI** and **ZoneGraph** for AI-driven entity behavior, enabling realistic 3D spatial simulations to study disease propagation.
- Developed a infection model based on the Wells-Riley model, incorporating close-contact dynamics, mask filtration rates, and airflow conditions to enhance disease spread modeling accuracy in confined environments by 30%.
- Designed and implemented the "Intervention Manager" module in collaboration with the WHO. Automated retrieval and processing of 10M+ US Census household records using **MATLAB**, reducing data preparation time by 40%.
- Authored an AWS blog detailing the technical integration of spatial simulations with **AWS EC2 GPU** instances, highlighting the use of **g5.24xlarge** for real-time simulations and **Amazon S3** for data storage and analysis.

JHU CBID VectorCam 06/2023 - 08/2023

- Designed and developed an Android app for vector surveillance to aid in malaria prevention and elimination in sub-Saharan Africa. Utilized **Java (Spring Boot)** and **Android Studio** for seamless app development and backend API integration.
- Implemented advanced image processing and real-time object detection using **YOLOv5**, **OpenCV**, and **TensorFlow** Lite, enabling on-device mosquito classification with 40% improved accuracy and reduced latency for field use.
- Optimized app performance by minimizing RAM consumption to ensure scalability and implementing offline functionality, supporting remote field operations in low-connectivity regions.

Quest2Learn 01/2023 - 10/2023

- Developed an immersive AR experience with 3D models and interactive modules using **Unity** and **React3Fiber.**
- Secured $20,000 in funding through the Singhal Family Entrepreneurship Award and the 2023 Dean’s Design Award.