

# Qinwei (Jennifer) Wu

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## EDUCATION

**University of Michigan — Ann Arbor**

*Aug 2017 – May 2021*

Degree: *B.S. in Computer Science and Mathematics*

Coursework: *Algorithms & Data Structures, Theory of Computation, Intro to Machine Learning  
User Interface Development, Web System, Database Management Systems, Game Dev*

## SKILLS

- Advanced programming skills in **C/C++**, **JavaScript**, **Python** and **PHP**
- Familiar with **web development** with **ReactJS**, **NodeJS**, **Restful APIs**, **Flask**, **HTML5** and **CSS**
- Proficient in **database management system** in **SQL (PostgreSQL, SQLite3)**, and **NoSQL (MongoDB)**
- Development tools and platforms: **Unity**, **Postman**, **Hadoop**, **Jira**, **Git**, **Linux** and **AWS**

## EXPERIENCES

**Backend Developer Intern**

*January 2021 – Present*

*Diversity*

*Los Angeles, CA*

- Built a consumer-facing product with backend micro-services using **Node.Js**, **PostgreSQL**, and **React.Js**.
- Implemented **JavaScript** components with machine learning algorithms that fulfilled business needs.
- Implemented **RESTful APIs** to interact with backend database and support frontend requests.
- Participated in an **agile development environment** and communicated with different teams to understand the business requirements.
- Created **unit tests** and conducted **regression tests** in a separate QA environment to ensure code quality.

**Student Software Developer**

*September 2018 - Present*

*University of Michigan*

*Ann Arbor, MI*

- Designed and implemented a **C++** simulation for a social experiment to process large scale data simulation efficiently.
- Developed a full stack website using **JavaScript**, **HTML/CSS** to display the logarithmic and the results of the study for public access.
- Enhanced graphs' user friendliness by adding interactive feature using **D3** and **SVG**.
- Developed and debugged in **Linux** environment.

**Consultant Intern**

*July 2019 – August 2019*

*Nomura Research Institute*

*Shanghai, China*

- Worked with SAIC to develop marketing plans of new auto repair shops for all levels of administrative divisions in China that fulfilled consumer needs.
- Conducted large scale data analysis on popular selling cars to develop an operational business plan to ensure a successful launch of a start up.

## PROJECTS

**Photo Sharing Web Development**

- Built a full stack photo sharing websites with account management, content recommendation, and reviews.
- Created **RESTFUL APIs** in **Python Flask** framework along side with asymmetric encryption to support database manipulation while ensuring the security of server communication.
- Implemented **React** modules to allow client-side dynamic webpage rendering for less latency.
- Deployed on **AWS** to facilitate user access.

**MapReduce and Encyclopedia Search Engine**

- Built a scalable independent MapReduce framework with parallel data processing using **Python**, and a web-based search engine with **Flask**.
- Configured communication in **TCP** and **UDP** sockets between MapReduce Master/Worker and search engine.
- Implemented shell scripts to run executable in **Python** that processes raw file and compute TF-IDF and PageRank score.
- Improved system stability by adding heartbeat and fault tolerance modules.