

Jinlang Wang

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EDUCATION

University of Wisconsin, Madison

Ph.D. in Computer Science

Coursework: Building Interactive Systems, Intro to VR, Big Data System, System Verification

Madison, Wisconsin

Sep 2022 – May 2027 (expected)

University of Pittsburgh

B.S. in Computer Science, GPA: 3.91/4.0

Pittsburgh, PA

Aug 2018 – Apr 2022

WORKING EXPERIENCES

Software Engineer Intern

Quantum Lab | Tencent

July 2021 – Oct 2021

Shenzhen, China

- Served as a lead engineer, where I designed the distributed timer service and distributed tasks among teammates. Using **Golang**, we developed the service and I independently implemented the **Paxos** algorithm from scratch. Our combined efforts secured the 1st prize at the Tencent Intern Competition.
- Implemented EDA(Electronic design automation) software, specifically topological router with **C++**.

Software Engineer Intern

Data Engine | DiDi

Jan 2021 – May 2021

Beijing, China

- Developed a storage algorithm Kim for trajectory compression based on Facebook Gorilla database's algorithm.
- Achieved a low compression ratio (Kim 6.94% < Gzip 7.57%), fast compression (3 microseconds, 500 pieces of data), and strong scalability, saving 60% storage space in fusion, a distributed NoSQL database.
- Used Uber Kepler to automatically visualize the trajectory of riders.

Deep Learning Intern

China Mobile Research Institute

June 2020 – Oct 2020

Beijing, China

- Proposed an attention-enhanced edge-cloud collaborative framework for multi-task applications.
- Compared results with several CNN models, including VGG and ResNet on various image classification datasets.
- Work published in 2020 IEEE IoT&IS: An Attention-Enhanced Edge-Cloud Collaborative Framework for Multi-Task Application.

RESEARCH EXPERIENCE

EasyVizAR

Advisor: Kevin Ponto | Research Project | Department of Computer Sciences

June 2023 - Present

Madison, WI

- Participating in a large-scale project alongside three professors, actively collaborating and sharing weekly progress
- Developed a mobile AR app using **Unity** to enhance situational awareness and indoor navigational capabilities.
- Planned enhancements include additional features and conducting user studies in real-life fire stations

Virtual Museum

Course Project | Department of Computer Sciences

Feb 2023 - May 2023

Madison, WI

- Led a team of three to develop a Unity-based virtual museum app for **Meta Quest 2**, featuring three immersive rooms: Impression, Nature, and Antique.
- Received positive feedback for the realistic exhibits, user-friendly navigation, and effective use of VR technology.

Social Annotations in Museums with Mobile AR

Advisor: Bilge Mutlu | Course Project | Department of Computer Sciences

Feb 2023 - May 2023

Madison, WI

- Collaborated with a team to design an iOS system using **Apple ARKit**, employing mobile augmented reality for in-situ participatory interpretation and providing synchronized social annotations for visitors.
- Evaluated the system with visitors and found that visitors generally spent more time around artifacts when using the system, and that they perceived communicative and educational values.

Alcohol Detection in Labs

Course Project | Department of Computer Sciences

Feb 2023 - May 2023

Madison, WI

- Designed a system that will monitor alcohol consumption in lab environments using ESP32, and used **OpenCV** to do face recognition.
- Evaluated the system with alcohol and found it successfully caught the tester's face.

TECHNICAL SKILLS

Languages: C, C#, C++, Golang, Java, Python, R, SQL **Frameworks and Tools:** Docker, Git, Linux, Redis, Unity