Jinlang Wang

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Education

University of Wisconsin, Madison — Madison, Wisconsin
Ph.D. in Computer Science — *Sep 2022 – May 2027 (expected)*
Coursework: Building Interactive Systems, Intro to VR, Big Data System, System Verification

University of Pittsburgh — Pittsburgh, PA
B.S. in Computer Science, GPA: 3.91/4.0 — *Aug 2018 – Apr 2022*

Working Experience

Software Engineer Intern — July 2021 – Oct 2021
Quantum Lab | Tencent — *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 — Jan 2021 – May 2021
Data Engine | DiDi — *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 — June 2020 – Oct 2020
China Mobile Research Institute — *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 IoTaIS: An Attention-Enhanced Edge-Cloud Collaborative Framework for Multi-Task Application. [PDF]

Research Experience

EasyVizAR [Web] — June 2023 - Presenet
Advisor: Kevin Ponto | Research Project | Department of Computer Sciences — *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 [Demo] — Feb 2023 - May 2023
Course Project | Department of Computer Sciences — *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 [Demo] [PDF] — Feb 2023 - May 2023
Advisor: Bilge Mutlu | Course Project | Department of Computer Sciences — *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 — Feb 2023 - May 2023
Course Project | Department of Computer Sciences — *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, Swift **Frameworks & Tools**: Docker, Git, Linux, Unity