

# Run Wang

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## EDUCATION

### Clemson University

*Ph.D. Student in Computer Science*

- Concentration: 3D Computer Vision and Trustworthy AI for Autonomous Vehicles

Clemson, SC

*Aug. 2025 – Present*

### Carnegie Mellon University

*M.S. in Electrical and Computer Engineering (Applied Advanced Program)*

Pittsburgh, PA

*Sep. 2021 – May 2023*

### Rensselaer Polytechnic Institute

*B.S. in Computer & Systems Engineering*

Troy, NY

*Sep. 2017 – May 2021*

## SKILLS

**Programming:** C, C++, C#, Python (PyTorch), Java

**Tools & Frameworks:** Docker, Kubernetes, Terraform, Hugging Face

**Research Areas:** Deep Learning, 3D Computer Vision, AI Security, Autonomous Driving

## PUBLICATIONS AND ACKNOWLEDGEMENTS

R. Wang *et al.*, “Lightweight Detection of Abnormal Battery Drain Induced by Network Operations of Mobile Apps,” **IEEE INFOCOM**, 2026.

R. Wang *et al.*, “MAPP: Predictive UI View Pre-caching for Improving the Responsiveness of Mobile Apps,” **IEEE/ACM IWQoS**, 2025.

W. Zhang *et al.*, “Component Segmentation of Engineering Drawings Using Graph Convolutional Networks,” *Computers in Industry*, vol. 147, Art. no. 103885, 2023. (Acknowledged Contributor)

## RESEARCH EXPERIENCE

### Graduate Research Assistant

*Clemson University*

Aug. 2025 – Present

*Clemson, SC*

- Supervisors: Dr. Siyu Huang and Dr. Mert D. Pesé
- Conducting research on 3D computer vision and trustworthy AI for autonomous driving systems.

### Graduate Research Associate

*The Ohio State University*

May 2024 – Aug. 2025

*Columbus, OH*

- Supervisor: Prof. Xiaorui Wang
- Designed machine learning models and time-series algorithms for mobile and edge performance optimization.
- Contributed to papers accepted by IEEE IWQoS 2025 and IEEE INFOCOM 2026.

### Research Assistant

*CERLAB, Carnegie Mellon University*

May 2022 – May 2023

*Pittsburgh, PA*

- Supervisors: Prof. Kenji Shimada and Dr. Wentai Zhang
- Developed deep learning methods for component extraction from engineering drawings.
- Adapted PSPNet, DeepLabV3+, and SketchGNN, achieving 84% overall accuracy.

### Research Assistant

*CyLab, Carnegie Mellon University*

Jan. 2022 – May 2022

*Pittsburgh, PA*

- Supervisor: Dr. Cai Yang
- Collected and analyzed 80+ Linux-based malware samples via dynamic system-level tracing.
- Constructed an in-house behavioral dataset with 14 discriminative features.

### Research Assistant

*RPI-IBM Cognitive and Immersive Systems Lab*

Jan. 2020 – Dec. 2020

*Troy, NY*

- Supervisors: Dr. Jeff Kephart and Dr. Xiangyang Mou
- Implemented a real-time gesture recognition system using C# and Python with Intel RealSense cameras.
- Collected 600+ gesture samples and extracted skeletal motion features.

## INDUSTRY EXPERIENCE

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### **Application Developer – Full Stack**

May 2023 – Apr. 2024

*Computer Packages Inc.*

*Rockville, MD*

- Supported migration from legacy systems to modern architectures while ensuring data integrity.
- Optimized SQL Server queries using stored procedures and execution plan tuning.

## PROJECT EXPERIENCE

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### **User Recommendation Microservice**

Aug. 2022 – Dec. 2022

*AWS, Kubernetes, Spark, FastAPI, Vert.x*

- Developed Spark-based ETL pipelines to preprocess ~1TB Twitter dataset on GCP Dataproc.
- Orchestrated AWS infrastructure and achieved 10,000 RPS within \$0.7/hr budget.