

Run Wang

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EDUCATION

Clemson University

Ph.D. Student in Computer Science

- Concentration: 3D Computer Vision, AI Security and Mobile Computing

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

PUBLICATIONS AND PREPRINTS

R. Wang et al., “FlexMap: Generalized HD Map Construction from Flexible Camera Configurations.”
arXiv Preprint.

C. Zhou, **R. Wang et al.**, “FF3R: Feedforward Feature 3D Reconstruction from Unconstrained Views.”
CVPR Findings, 2026.

R. Wang et al., “Lightweight Detection of Abnormal Battery Drain Induced by Network Operations of Mobile Apps.”
IEEE INFOCOM, 2026. Acceptance Rate: 329/1740 (18.91%)

R. Wang et al., “MAPP: Predictive UI View Pre-caching for Improving the Responsiveness of Mobile Apps.”
IEEE/ACM IWQoS, 2025. Acceptance Rate: 81/326 (24.8%)

RESEARCH EXPERIENCE

Graduate Research Assistant

Clemson University

- Supervisors: Dr. Siyu Huang and Dr. Mert D. Pesé
- Ongoing Project: Securing Cross-Sensor Fusion in Autonomous Driving Systems

Aug. 2025 – Present

Clemson, SC

Graduate Research Associate

The Ohio State University

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

May 2024 – Aug. 2025

Columbus, OH

Research Assistant

CERLAB, Carnegie Mellon University

- 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.

May 2022 – May 2023

Pittsburgh, PA

Research Assistant

CyLab, Carnegie Mellon University

- 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.

Jan. 2022 – May 2022

Pittsburgh, PA

Research Assistant

RPI-IBM Cognitive and Immersive Systems Lab

- 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.

Jan. 2020 – Dec. 2020

Troy, NY

INDUSTRY EXPERIENCE

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.

SKILLS

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

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

Research Areas: Deep Learning, Autonomous Driving, Mobile Computing

PROJECT EXPERIENCE

Cosmospapers Research Assistant Platform

Jan. 2026 – Present

Demo - [Github](#) - [Github Star: 23](#)

- Developed RAG-based paper search engine.
- Collected, vectorized 54000+ papers from 15+ top conferences.
- Extracted 150 hierarchical research topics with interactive visualizations.

User Recommendation Microservice

Aug. 2022 – Dec. 2022

GCP, 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.