Run Wang
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EDUCATION

Clemson University **SC, USA**
Phd Student in Computer Science Aug. 2025 - Present
Concentration**: *3D Computer Vision and Trustworthy AI for Autonomous Vehicles***

Carnegie Mellon University **PA, USA**
Master of Science in Electrical and Computer Engineering - Applied Advanced Program Sep. 2021 - May 2023

Rensselaer Polytechnic Institute **NY, USA**
Bachelor of Science in Computer & Systems Engineering 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," in Proc. IEEE Int. Conf. Computer Communications (***INFOCOM***), 2026.
- **R. Wang** et al., "MAPP: Predictive UI View Pre-caching for Improving the Responsiveness of Mobile Apps," in *Proc. IEEE/ACM Int. Symp. Quality of Service (**IWQoS**)*, 2025.
- W. Zhang et al., "Component Segmentation of Engineering Drawings Using Graph Convolutional Networks," Computers in Industry, vol. 147, Art. no. 103885, May 2023. [Acknowledgement]

RESEARCH EXPERIENCE

Graduate Research Assistant | Clemson University | Clemson, SC **Aug 2025 – Present**
- Designed 3D Vision and Trustworthy AI for Autonomous Driving.

Graduate Research Associate | Ohio State University | Columbus, OH **May 2024 – Aug 2025**
- Designed machine learning models and time series algorithms to improve the performance of mobile and edge devices.
- (One paper is accepted to IWQoS 2025, and one paper is accepted to INFOCOM 2026)

Research Assistant | CERLAB @ Carnegie Mellon University | Pittsburgh, PA **May 2022 – May 2023**
- Developed methods to extract component-level information from engineering drawings.
- Tweaked **PSPNet**, **DeepLabV3+,** and **SketchGNN,** and achieved **84% (SketchGNN)** overall accuracy

Research Assistant | CyLab @ Carnegie Mellon University | Pittsburgh, PA **Jan. 2022 – May 2022**
- Collected 80+ Linux OS based Malware Samples and traced their dynamic system-level behaviors.
- Created an in-house database by selecting and extracting 14 behavior features.

Research Assistant | RPI-IBM Cognitive and Immersive Systems Lab | Troy, NY **Jan. 2020 – Dec. 2020**
- Collaborated with the team in CISL to implement a real-time gesture recognition system by using **C#** and **Python** based on the **Nuitrack SDK** and **Intel® Realsense™ d435** camera.
- Gathered more than 600 gesture samples from 8 students with different body shapes and extracted data of skeletons.

WORK EXPERIENCE

Application Developer -- Fullstack | Computer Packages. Inc | Rockville, MD **May 2023 - Apr. 2024**
- Assisted in the migration process from legacy systems to newer technologies while ensuring data integrity.
- Optimized **SQL Server** queries for better performance by utilizing stored procedures and query optimization techniques.

PROJECT EXPERIENCE

User Recommendation MicroService **Aug. 2022 – Dec. 2022**
(AWS EC2, MySQL, AWS ECR, Kubernetes, Docker, Java, Python, Vertx, Spark, Scala)
- Constructed a prototype by using **FastAPI** and **Vert.x** and benchmarked their performance.
- Developed an ETL pipeline by using **Spark Scala API** on **GCP Dataproc** to preprocess ~1TB Twitter dataset.
- Orchestrated the **AWS Cluster** and achieved 10000 RPS for the User recommendation service within a budget of 0.7$/hr.

WeCloudChat Service **Aug. 2022 – Sept. 2022**
(Azure ACR, Azure Front Door, GCR, GKE(Google Kubernetes Engine), Java, Kubernetes, Helm, HPA)
- Detected service lapses, rerouting traffic, and scaling using **HPA** (Horizontal Pod Autoscaler).
- Configured Azure Front Door for multi-cloud deployment routing.