

Vijay Rajagopal

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SUMMARY

I am currently a Graduate Research Assistant at the University of Tennessee, with four years of research experience. During this time, I developed expertise in detecting and tracking objects in real time using neural networks and advanced algorithms. Additionally, I have optimized and deployed neural networks to edge devices, as well as trained networks with large-scale datasets. During my research, I improved skills related to deep learning, team communication, and product presentation. Currently, I am looking for opportunities in computer vision with high-impact and challenging applications.

EDUCATION

The University of Tennessee | Knoxville, TN

Aug 2021 – December 2022

Masters Studies in Computer Science (5 Year BS/MS Program)

Overall GPA: 3.90/4.00

The University of Tennessee | Knoxville, TN

Aug 2017 – May 2021

Bachelor of Science in Computer Science (Honors) w/ Cybersecurity Minor

Overall GPA: 3.68/4.00

Courses: Realtime Artificial Intelligence, Introduction to Quantum Computing, Reinforcement Learning

EXPERIENCE

Graduate Research Assistant for Computer Vision and Image Processing

Aug 2021 – Present

The University of Tennessee | Dr. Mongi A. Abidi

Knoxville, TN

- Creating and modifying neural networks tasked for Object Detection and Multi-object Tracking
- Working with multi-modal data (optical imaging and RADAR data)
- Optimizing neural networks to run in real-time on low-power devices (Jetson AGX, Jetson NX, and FPGAs)
- Profiling and accelerating neural networks with wide-array of toolkits (TensorRT, TF-Lite, SparisfyML)
- Collaborating with diverse range of laboratories to create a commercially-viable product
- Creating methods to increase neural network robustness against data in unideal environments

Undergraduate Research Assistant for Deep Learning and Image Processing

Jun 2018 – Aug 2021

The University of Tennessee | Dr. Mongi A. Abidi

Knoxville, TN

- Conducting performance analysis on FPGA-capable neural networks
- Testing and modifying facial detection neural networks for large crowds
- Developed program that analyzes network performance against degraded and corrected images

International Paper IT Intern

Jun 2020 - Aug 2020

International Paper | Scott Walsh

Memphis, TN

- Assisted setup of Azure instances by scripting and documenting network security and traffic policies
- Redesigned SharePoint website for IP's Cloud Readiness Program with HTML, ASPX, and Javascript
- Presented concept dashboard created with Express.js, Angular, and MongoDB for IP's Virtual Innovation Forum

Co-Founder & Lead Developer of Citiwrks

Mar 2019 - Aug 2020

City of Knoxville | Citiwrks LLC

Knoxville, TN

- Created mobile app for City of Knoxville to manage their road repairs (Team size: 4)
- Coordinated with and was funded by City of Knoxville to enhance app features
- App allows city to manage active work tickets, map best routes, and generate statistics
- Developed at hackathon & won three prizes (Best Mobile App, Best Google Cloud Usage, Fan Favorite)

TECHNICAL SKILLS

- **Programming:** Python (PyTorch, Tensorflow), Javascript, C++, C, Objective-C, Typescript, PHP, SQL
- **Other Tools:** Raspberry Pi, Azure, AWS, Blender 3D, Kali Linux