Azan Nazar

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EDUCATION

Binghamton University, State University of New York, Thomas J. Watson College of Engineering and Applied Science
Master of Science in Computer Science (AI Track) *May 2025*
Bachelor of Science in Computer Science *May 2024*
Cumulative Graduate GPA: 3.54/4.00
Relevant Coursework: Intro to AI, Intelligent Robotics, Machine Learning, Human-Computer Interaction, Computer Networks, Data Structures & Alg, Prob with Stat Methods, Operating Systems, Design Patterns, Systems Programming

TECHNICAL SKILLS

Programming Languages: Python, C++, Java, C, SQL, R, JavaScript, Go, Rust, X86 Assembly, Prolog, Haskell
Software: VS Code, Ubuntu, Linux, Git, CI/CD, LaTeX, TCP/IP, Figma, ROS, Google Workspace, Microsoft Office Suite

PROFESSIONAL EXPERIENCE

Binghamton University, *Smart Health Research Assistant* | Vestal, NY | Link *August 2024 - Present*
- Co-author a gesture recognition and computer vision survey, identifying trends in HCI, accessibility, sensor fusion and adaptive learning for smart health and assistive technology applications
- Assess and evaluate LLM architectures (CNNs, GCNs, Transformers) for multimodal gesture detection using LiDAR, EMG, and IMU data, optimizing real-time performance and enabling context-aware, personalized feedback systems
- Collaborate with Professor Yincheng Jin and academic faculty to design personalized training frameworks in AR/VR
- Complete extensive literature reviews, and oversee journal publications in LaTeX for current research contributions

PROJECT EXPERIENCE

CRNN App, *Android & AI Developer* | Link *September 2024 - February 2025*
- Developed Android application (Java, Android Studio) for accurate word inference using trained neural networks
- Engineered CRNN models (PyTorch/TensorFlow) for robust word sequence extraction/recognition via OpenCV
- Integrated CTC loss functions and GRU/LSTM architectures for segmentation-free sequential data recognition
- Refined pre-trained models for video-based inference recognition showcasing 20ms latency and high accuracy

PRM vs RRT Robotic Simulation, *Python Programmer* | Link *January 2025 - May 2025*
- Designed and deployed custom PRM/RRT algorithms in PyBullet/Gazebo integrated with ROS Noetic/Ubuntu 20.04
- Ran 1,000+ simulations evaluating path smoothness and runtime using Python scripting via Linux command line
- Validated algorithms on real-life TurtleBot3 with results showing PRM's path quality vs. RRT's faster planning time

Internet Relay Chat, *C++ Programmer* | Link *March 2024 - May 2024*
- Implemented a multithreaded Internet Relay Chat system with secure server-to-server communication using C++ STL
- Processed authenticated clients via central IRC with synchronized TCP connections for message parsing and routing
- Tested multiple concurrent users communicating across multiple IPs with minimal latency

Analyzing Climate Patterns using IOT Sensors, *Python Programmer* | Link *August 2023 - December 2023*
- Cooperated in a cross-functional team of four with rigorous project progress reviews for IoT-related research
- Employed Raspberry Pi 4s to collect pollutant-related climate data and applied regression models for analysis
- Presented detailed climate analysis of local area surrounding Binghamton University to faculty and professionals

ACHIEVEMENTS AND AWARDS

ISACA Cybersecurity Case Competition Winner, *CISO Strategic Lead* *October 2024 - May 2025*
- Developed 3-year cybersecurity strategy for CyberArk addressing AI threats, hybrid cloud risks, and zero-day exploits
- Won 1st among 32 national teams in final debate judged by executive from ISACA New York Metropolitan Chapter

NYU Product Case Competition Finalist, *AI/AR Analyst - Competition Participant* *April 2025*
- Proposed Snapchat AR and Slack AI productivity tools in national competition representing Binghamton University
- Awarded honorable mention among top-tier national competitors; judged by tech leaders (IBM, Microsoft, Google)

EY TechX Case Finalist, *AI Analyst- Competition Participant* *September 2024 - November 2024*
- Investigated solution implementations using AI to improve Starbucks process inefficiencies, value realization and ROI
- Delivered strategic roadmap to maintain "third place" status to EY senior consultants and executives at NY HQ