# 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

Cumulative Graduate GPA: 3.54/4.00 | Dean's List: Spring 2023 - Spring 2025

May 2024

**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, Linux, Git, CI/CD, HTML, CSS, Google Workspace, Microsoft Office, TCP/IP, Figma, ROS, Ubuntu

#### PROFESSIONAL EXPERIENCE

Binghamton University, Smart Health Research Assistant | Vestal, NY

August 2024 - Present

- Co-author a gesture recognition and computer vision survey, identifying trends in HCI, accessibility, sensor fusion and adaptive learning for gesture classification, sequence modeling, and generative motion synthesis
- Evaluate LLM architectures (CNN, GCN, GAN, Diffusion Models, Transformers) for multimodal gesture detection
- Collaborate with academic faculty to design training frameworks in AR/VR with computer vision libraries (OpenCV)
- Complete journal publication in LaTeX for research contributions for CHI 2025 Yokohama, Japan ACM conference

#### PROJECT EXPERIENCE

CRNN Computer Vision App, Android & AI Developer

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

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

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*

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

### HONORS AND VOLUNTEERING EXPERIENCE

### 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