Jason Nguyen

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EDUCATION

Lawrence Technological University, *Southfield, MI* — Graduation: May 2026
Bachelor of Science, Computer Science
- Cumulative GPA: 3.4
- Dean's List: 2 Semesters
- All-Academic Team: 3 Awards in Esports and Men's Volleyball

WORK EXPERIENCE

BorgWarner, *Auburn Hills, MI* — Jun 2025 – Present
IT Infrastructure Automation Intern
- Created and deployed Azure Backup and Recovery Service Vaults using Terraform, automating virtual machine backups for workloads including SAP Enterprise, SAP Voyager, SQL Server, and PostgreSQL, enhancing disaster recovery readiness and data resilience
- Develops infrastructure automation scripts using Terraform and Ansible to streamline provisioning and configuration processes
- Supports deployment and maintenance of automation workflows through Terraform, Ansible Automation Platform, GitHub, and Azure DevOps pipelines
- Writes and maintains infrastructure-as-code in HCL, YAML, and JSON formats to ensure scalable servers and consistent environments
- Collaborates with cross-functional teams around the globe, including APAC, EMEA, and NCSA, to identify automation opportunities, delivering process improvements and operational efficiency

The Blue Times Newsletter, *Southfield, MI* — Nov 2023 – Present
President, Editor in Chief
- Interviewed Professors Paula Lauren and Franco Delogu on integrating virtual reality and artificial intelligence to enhance immersive learning and conceptual understanding
- Compiles monthly reports highlighting campus opportunities, including jobs, internships, and research positions, for the Lawrence Tech student body
- Coordinates team meetings, editorial calendars, and contributor deadlines to maintain consistent publication cycles
- Oversees the editorial process from pitch to publication, ensuring clarity, accuracy, and alignment with journalistic standards
- Revamped the newsletter's content strategy and design layout, resulting in a 50% increase in student readership and engagement

Lawrence Technological University, *Southfield, MI* — May 2025 – Jul 2025
Student Assistant
- Guides 20+ high school students in programming robotic dogs using Python to perform autonomous movements and respond to sensor input
- Supports instruction in Python programming fundamentals by mentoring high school students through coding challenges and robotic simulations
- Assist 12+ high school students in designing and modifying 3D models using CAD software and facilitate the operation of 3D prints to fabricate physical prototypes
- Provides hands-on guidance in troubleshooting print errors and optimizing print settings to achieve accurate and high-quality results

Lawrence Technological University, *Southfield, MI* — Jan 2025 – May 2025
Teaching Assistant
- Supports 40+ undergraduate students in understanding core concepts of Calculus I & II, including limits, derivatives, integrals, sequences, and series
- Conducts weekly lab sessions and problem-solving workshops, clarifying lecture material and reinforcing key mathematical principles
- Develops and demonstrates R scripts for real-world applications such as descriptive statistics, regression analysis, and hypothesis testing.
- Leads lab sessions introducing statistical analysis and data visualization using R programming on how it compiles and executes

INVOLVEMENT

Lawrence Technological University, *Southfield, MI* — Feb 2025 – Present
Undergraduate Researcher
- Collaborated with Professor Wisam Bukaita to research robotic perception using LiDAR for environment mapping and obstacle avoidance in robotic dogs
- Conducts experiments with the Unitree Go2, using ROS, collecting and analyzing sensor data in Excel to simulate applications in hazardous environments and condition monitoring
- Researched inclusive practices in software engineering with Professor Destiny Anyaiwe, focusing on the participation and accessibility needs of blind and visually impaired individuals in the tech industry

Lawrence Tech Men's Volleyball, *Southfield, MI* — Sep 2024 – Present
Team Manager
- Organizes and leads 10+ practice drills and warm-up routines for the undefeated, #1-ranked WHAC team and #3 nationally ranked NAIA men's volleyball program
- Supports coaching staff by tracking and inputting performance statistics and player metrics for 30+ athletes using Excel
- Collaborates with 40+ players, coaches, and staff to foster a positive, disciplined, and team-focused environment on and off the court
- Contributes to logistical coordination during practices, games, and tournaments to ensure smooth operations and player preparedness

Lawrence Tech Esports, *Southfield, MI* — Oct 2023 – Present
Social Media Manager, Varsity Player
- Creates and manages engaging digital content to promote tournaments, match highlights, and team milestones, increasing engagement for the #2 VALORANT team in the WHAC
- Provides live coverage of esports events across social media platforms, boosting real-time interaction and expanding audience reach
- Collaborates with coaches, teammates, and the esports director to ensure consistent branding and timely dissemination of news, roster updates, and achievements
- Competed as a varsity player in national and conference-level tournaments, contributing to the team's highly competitive ranking and success

PROJECTS

Personal Portfolio Website — Feb 2025 – Present
- Hosts and version-controls the site through GitHub, implementing responsive design and clean UI for an optimized user experience
- Designed and developed a personal portfolio website to showcase projects, work experience, skills, campus involvement, and biography using HTML, CSS, SCSS, and JavaScript
- Registered a custom domain and configured DNS to redirect traffic from GitHub Pages to jasonbaoduy.com

ROS Mobile Robot — Aug 2024 – May 2025
- Conducted extensive field testing to validate mapping accuracy, path tracking stability, and obstacle response
- Developed a mobile robot capable of autonomously tracking a blue line using computer vision techniques and ROS control systems using Python, C++, and integrated launch files, transform masking, URDF model, TF tree, Hector SLAM map, laser scan, and odometer into RVIZ
- Integrated LiDAR sensor and publishing data to implement real-time obstacle detection and avoidance for dynamic environments, where once the mobile robot detects an object in front of it, it will spin 180 degrees and go the opposite way to avoid the obstacle in its path

AI-Assisted Dungeon Game for the Blind — Oct 2023 – Dec 2023
- Developed a 2D dungeon exploration game in Java designed specifically for blind and visually impaired players, emphasizing accessibility and inclusivity
- Implemented AI-assisted narration, spatial audio cues, and haptic feedback to create an immersive, multi-sensory gameplay experience
- Integrated sound staging and directional audio to help players navigate environments, identify obstacles, and interact with in-game elements without visual input

TECHNICAL SKILLS

Programming Languages: Python, HCL (HashiCorp Configuration Language), JSON, YAML, Jinja2, PowerShell (Cmdlet / PS1), Java, JavaScript, C++, C#, C, SQL, R, SCAD, 68K Assembly, CSS, SCSS, HTML, HTML5

Developer Tools: Terraform, Ansible, Azure DevOps Server, Microsoft Office, Visual Studio Code, GitHub, Git, Eclipse, RStudio, WSL Linux, Ubuntu, ROS Noetic, OpenSCAD, EASy68K, Dreamweaver, Bambu Studio, MySQL, BIOPAC Lab, Blender, JASP, UltiMaker Cura