Jason Nguyen

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EDUCATION

Lawrence Technological University **Southfield, MI**
Bachelor of Science in Computer Science Expected Graduation: May 2026

- Cumulative GPA: 3.45/4.00
- Dean's List: 3 Semesters
- All-Academic Team: 3 Awards in Men's Volleyball & Esports

EXPERIENCE

BorgWarner **Auburn Hills, MI**
IT Infrastructure Automation Intern Jun 2025 – Present

- Develops infrastructure-as-code for cloud resources using Terraform and Ansible, streamlining provisioning, configuration, and creation of Azure resources, enabling scalable infrastructure as code deployment across multiple regions
- Implemented automated cloud backup infrastructure and solutions using Terraform and Azure, improving data protection, reducing manual intervention by 30%, and enabling secure and scalable backups for SQL Servers and PostgreSQL workloads
- Collaborates with global IT teams to standardize cloud infrastructure automation practices and drive operational efficiency
- Built and maintain cloud automation and CI/CD pipelines using Terraform Cloud, Red Hat Ansible, GitHub, and Azure, accelerating deployment cycles, improving reliability in production, and reducing costs by 15%

The Blue Times Student Newsletter **Southfield, MI**
President Nov 2023 – Present

- Compiles monthly reports that focus on giving opportunities, updates, and insights for Lawrence Tech students and faculty
- Revamped the newsletter's content strategy and design layout, resulting in a 50% increase in student readership and engagement
- Coordinates team meetings, editorial calendars, and deadlines to maintain consistent publication cycles

Lawrence Technological University **Southfield, MI**
Research Assistant Feb 2025 – Present

- Conducts experiments with the Unitree Go2, using ROS, collecting sensor data in Excel to simulate applications in condition monitoring with Professor Wisam Bukaita to research robotic perception using LiDAR for mapping and obstacle avoidance
- Researching on personalized real-to-sim to real-navigation with Gaussian Splats from a mobile device, with Department Chair of Math and Computer Science, Eric Martinson, on the temporal side of scanned environments

Student Assistant May 2025 – Jul 2025

- Assisted 12+ students in designing 3D models using CAD and facilitated operation of 3D prints to fabricate physical prototypes
- Guides 20+ students in programming Python through coding challenges and robotic simulations

Teaching Assistant Jan 2025 – May 2025

- Supported 40+ students in understanding concepts of Calculus I & II, including limits, derivatives, integrals, and sequences
- Lead lab sessions introducing statistical analysis and data visualization using R programming on how it compiles and executes

PROJECTS

ROS Mobile Robot

- Developed a ROS mobile robot in C++ and Python, capable of autonomously tracking a blue line using computer vision, and integrated a LiDAR sensor that publishes data for real-time obstacle detection and avoidance for dynamic environments
- Conducted extensive field testing to validate mapping accuracy, path tracking stability, and obstacle response

AI Study Planner

- Developed a web application in Java that generates personalized study schedules for students using AI-driven task prioritization
- Designed and built RESTful APIs in Spring Boot to handle task creation, prioritization, and calendar scheduling logic
- Built an interactive React.js frontend with dynamic task management and calendar visualization for planned study sessions

Vending Machine Simulator

- Designed a vending machine simulation in C++ with mode locking and password authorization; service and customer mode
- Programmed inventory management of drinks and transaction logic to handle customer payments and calculate change

Simple Mail Transfer Protocol

- Developed a Python SMTP client capable of sending email messages using socket programming and Gmail's SMTP server
- Implemented multipart MIME encoding to enable sending image attachments (PNG/JPEG) through raw SMTP commands
- Designed client to support full email formatting, including custom subject lines and MIME-compliant message bodies

TECHNICAL SKILLS

Programming Languages: Terraform, Python, Ansible, C++, C, PowerShell, Java, JavaScript, SQL, R, CSS, HTML
Frameworks & Libraries: React.js, Spring Boot
Databases & Analytics: Microsoft Power BI, PostgreSQL, MySQL
Developer Tools: Microsoft Azure, Terraform Cloud, Red Hat Ansible, Microsoft Office, VS Code, Visual Studio, GitHub, Git, WSL, Linux Ubuntu, ROS Noetic, Wiki.js, VMware