Jason Nguyen

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EDUCATION

Lawrence Technological University   **Southfield, MI**
Bachelor of Science in Computer Science   Expected Graduation: May 2026
- Cumulative GPA: 3.40
- Dean's List: 2 Semesters

WORK EXPERIENCE

BorgWarner Inc.   **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 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
- 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%
- Collaborates with global IT teams to standardize cloud infrastructure automation practices and drive operational efficiency

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

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

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
- Coordinates team meetings, editorial calendars, and contributor deadlines to maintain consistent publication cycles
- Revamped the newsletter's content strategy and design layout, resulting in a 50% increase in student readership and engagement

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

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

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

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, Ansible, Python, PowerShell, Java, JavaScript, C++, C, SQL, R, CSS, HTML

Frameworks / Libraries: React.js, Spring Boot

Databases & Analytics: MySQL, Power BI, PostgreSQL

Developer Tools: Terraform Cloud, Red Hat Ansible, Microsoft Azure, Microsoft Office, VS Code, Visual Studio, GitHub, Git, RStudio, WSL, Linux Ubuntu, ROS Noetic, Wiki.js, VMware, Maven