DANIEL VU

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Education

University of Minnesota Twin-Cities, GPA - 3.7   Sep. 2023 – May 2026
Bachelor of Science in Computer Science — Minor in Management Information Systems   *Minneapolis, MN*

Relevant Coursework

- Robotics/Computer Vision
- Machine Learning
- Machine Architecture
- Software Engineering
- Algorithms and Data Structures
- Virtual/Augmented Reality

Technical Skills

Languages: C++, SQL, MongoDB, Python, Java, JavaScript, TypeScript, GLSL, C
Developer Tools: Git, Docker, Jira, VS Code, Raspberry Pi OS
Technologies: ROS 2, Angular, React.js, Node.js, Express.js, Firebase Auth, Stripe, AWS, Tailwind CSS
AI & ML: PyTorch, TensorFlow, OpenCV, Machine Learning, Facial Recognition

Experience

Smart Data Solutions   May 2025 – Aug 2025
Software Engineer Intern   *Eagan, MN*

- Developed automated data capture workflows by refining configuration logic and debugging failures, improving reliability
- Provided technical support for internal platforms and client-facing applications, achieving 80%+ first-contact resolution
- Collaborated on QA test plans, validating production builds, and performing regression testing to ensure release readiness
- Authored internal documentation and onboarding guides, reducing ramp-up time for new team members

AI4Earth Summer Research Program   Jun 2025 – Aug 2025
Research Participant   *University of Minnesota, National Science Foundation*

- Researched and developed LSTM-based sequence-to-sequence models to predict stream temperatures
- Preprocessed datasets by merging weather, reservoir, and stream temperature data; handled missing values via interpolation
- Developed PyTorch workflows for training, finetuning, and evaluating models against persistence baselines
- Built visualization and testing tools for model comparison; presented findings to peers and faculty mentors

Certifications

TestOut PC Pro Certification (6-1C6-NH5VR): Tested through simulations and exams for installing, repairing, configuring, and securing computer hardware/software and operating systems.

Projects

Tenant Management Website | *Angular, Express.js, MongoDB, Firebase Auth, Stripe, AWS*   **GitHub Repository**

- Built a full-stack rental management system with tenant onboarding, rent collection, and maintenance features.
- Integrated Stripe for payments, Firebase Auth for role-based access, and AWS for hosting and document storage.
- Deployed Angular frontend via AWS S3/CloudFront; used Firebase Messaging and AWS SES for real-time alerts.

Drone Delivery Simulation | *C++, TypeScript, Jira, Docker*   **Docker Repository**

- Built a 3D drone delivery simulation using C++ backend and TypeScript frontend.
- Added recharge stations, battery management, and telemetry tracking features.
- Implemented factory and decorator design patterns; followed Agile workflows in Jira.

Smart Mirror System | *Raspberry Pi, Python, OpenCV, TensorFlow, MQTT*   **GitHub Repository**

- Created an AI-powered smart mirror with real-time updates, personalization, and modular components.
- Enabled facial recognition via TensorFlow and hands-free interaction using voice and gestures.
- Integrated weather, news, and IoT controls into a Raspberry Pi-based UI.