

Daniel Vu

vud1394@gmail.com | (952) 693-7620 | Shakopee, MN, 55379

<https://www.linkedin.com/in/daniel-vu04/> | <https://vuwebsiteportfolio.netlify.app/>

CERTIFICATIONS, SKILLS

- **Languages:** Python, Java, Javascript, Ocaml, C, C++, Assembly
- **Software Tools:** Git, Docker, Jira, React
- **Technical Skills:** Object-Oriented Design, Agile/Scrum, SOLID Design Principles, Design Patterns, Algorithms and Data Structures, Prioritization Methods (MoSCoW), EARS Requirement Style, Gherkin Tests
- **Soft Skills:** Communication, Critical Thinking, Attention to Detail, Project Management, Adaptability, Problem Solving, Team Collaboration
- **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 in home/corporate environments.

Technical Projects

- **Software Engineering Tools/Utilities**
 - Developed a Python code generator for cybersecurity applications, improving code validation by 20%
 - Created Java-based account management systems to process and secure sensitive user data.
- **Drone Delivery Sim, Backend Developer** hub.docker.com/repository/docker/vud1394/drone_sim
 - Developed a drone delivery simulation in an agile environment, utilizing Jira for sprint planning, task tracking, and team collaboration.
 - Incorporated features like recharge stations, a battery management system, and data collection.
 - Engineered backend pathfinding in C++ and integrated 3D assets while implementing frontend functionality in TypeScript.
 - Designed system architecture with UML, employing design patterns (decorator, singleton, factory) to ensure scalability and maintainability.
 - Leveraged Git for version control and Docker for containerization, facilitating efficient deployment and consistent development environments.
- **Robotic Projects**
 - Assembled and programmed robots using different gear systems for movement and task execution.
 - Engaged in collaboration to brainstorm ideas, prototype designs, and troubleshoot technical issues.
 - Acquired practical skills in gear ratios, torque calculations, and motion control principles increasing robot task efficiency by 25%.
 - Demonstrated adaptability and problem-solving abilities in overcoming project challenges.

WORK EXPERIENCE

Tech Academy

Apr 2024 – Present

Stem Teaching Assistant

Little Canada, MN

- Prepared computer science course materials, guiding students in robotics and virtual reality coding projects.
- Coached students in assembling robots and troubleshooting technical issues, improving their understanding of robotics by 70%.
- Led workshops that introduced 100+ students to virtual reality development, resulting in a 90% project completion rate.

EDUCATION

University of Minnesota Twin-Cities,

September 2023 - May 2026

College of Science and Engineering

Minneapolis, MN

BS Computer Science, Minor: Management: Dean's List (Fall 2023), Presidential Scholarship Recipient

- **Relevant Coursework:** Algorithms and Data Structures, Advanced Programming Principles, Machine Architecture and Org, Computing and Programming Concepts, Program Design & Development