

Daniel Du Trinh

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Skills

- **C/C++:** Objects, Classes, Algorithms, Memory Management, Bitwise, Data Management
- Optimizing Locally Hosted **Generative AI** (Stable Diffusion)
- **Graphic Design** (Photoshop, Canva, AI Generation)
- **Web development:** JavaScript, HTML, CSS
- **3D Computer Aided Design/Manufacturing** (SolidWorks)
- **Professional Video Editing** (DaVinci Resolve, Adobe Premiere Pro)

Experience

M&S Traffic Ticket Legal Services: IT Support

- Streamlined and implemented IT support processes (ticketing systems, FAQ, remote support, alerts) for optimal, 100% faster employee issue resolution.
- Proficient troubleshooting/training for daily hardware and software related issues + cybersecurity practices.
- Assembled and maintained tailored and efficient workstation setups to enhance dozens of employees' productivity by 70%

Chaminade Robotics: Head of CAD Department

- International FIRST Robotics Competitions (#12th/50), (#13th/31), (#43rd/150)
- Lead in coordinating CAD + mechanical team for project collaboration
- Applying 3D CAD software such as SolidWorks to accurately model intricate robotic assemblies.
- Programming computer-aided manufacturing for milling crucial parts.
- CAD Tutor for team of 15+ underclassmen 3d Modellers.

United Together COVID-19 Senior Assistances: Technical Support Volunteer

- Provided technical support to senior community members, assisting them in navigating online platforms for COVID-19 vaccine registration.
- Troubleshoot and resolved issues related to device accessibility, browser compatibility, and online booking systems.

Projects

- **Localized Modular Weather Balloon for Low-Resource Communities**
 - Directed team members and managed project scheduling/milestones for timely completion
 - Sensor integration through low-level C for data detection and transmission to a 32-bit microcontroller
 - Designed, 3D CAD modelled, and printed sensor housing for an efficient and optimized physical design
 - Created Engineering standard mechanical and circuit schematics for thorough design depiction
- 2023 FIRST Global Challenge: Head of CAD for robotics vehicle w/ sensor-driven angled disc launcher and claw climbing.
- Trained and optimized AI LoRA models with Kohya, using datasets that map descriptive text to neural network adaptations for fine-tuning.

Awards

- Waterloo President's Scholarship of Distinction (97% Average)
- Enriched STEAM Certificate of Achievement
- Chaminade First Place Mathematics Award (#1/150)
- Chaminade First Place Information and Communication Technology Award (#1/150)
- Chaminade First Place Technological Design Award (#1/150)
- National Lifeguard Award

Education

University of Waterloo

- Bachelor of Applied Science: Computer/Electrical Engineering

Graduation Expected in 2029