



# Daud Khalid

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## EDUCATION

Wilfrid Laurier University — Honours BSc in Computer Science

Expected 2027

- Notable Coursework: Algorithms Design & Analysis, Data Structures II, Operating Systems, Software Engineering, Databases, Computer Networks, System Programming

## WORK EXPERIENCE

HRONK Robotics

January 2026 – Present

Software Engineer

- Developed **embedded C/C++ firmware** for microcontroller-based robotic systems with real-time motor control, improving **control loop latency by 25%** and reducing jitter by 20%
- Integrated sensors and actuators via UART, SPI, and I2C for closed-loop operation, increasing **data acquisition reliability to >99.5%** and reducing communication errors by 30%
- Built telemetry services and dashboards (**Node.js, PostgreSQL, React**) for device monitoring and configuration, reducing **troubleshooting time by ~40%** and enabling real-time visibility across **100+ devices**

Wilfrid Laurier University

May 2025 – Aug 2025

Software Support Engineer

- Developed and deployed **Bash automation scripts** for administrative workflows and data processing in Ellucian Banner, reducing manual workload and improving system efficiency by **~40%**
- Designed and automated identity lifecycle pipelines in **Azure AD (Entra ID)** for a **28,000+ user environment**, implementing scripted provisioning, RBAC role assignment, and MFA enforcement, reducing onboarding time by **~30%**

## EXTRACURRICULAR EXPERIENCE

Virtual Reality Laurier

Sep 2022 – May 2024

President

- Led development of a **multiplayer VR game** for Meta Quest in **Unity/C#**, implementing **client-server networking**, synchronized state replication, and real-time interaction systems for **10+ concurrent users**
- Led a **20+ member engineering team** developing VR software, mentoring contributors in **Unity, C#, and multiplayer architecture** while coordinating feature delivery across collaborative projects


## PROJECTS

JellyCLI – Python, REST APIs

 JellyCLI

- Built a modular Python TUI client integrating **authenticated REST APIs** for remote media management
- Implemented **OIDC-based SSO** with resilient error handling for secure, reliable client-server authentication

Flight Booking & Management System – React, Node.js, Supabase

 Flight Management System

- Built a **full-stack flight booking system** with authenticated workflows, REST API integration, and real-time flight search
- Designed **normalized PostgreSQL schemas (5+ entities)** and implemented **RBAC** to support secure multi-user access

## TECHNICAL SKILLS

- **Languages:** Python, C, C++, Java, JavaScript, SQL
- **Technologies:** Linux, Embedded Systems, Node.js, React, PostgreSQL, Docker, Azure