

Jack Hogan

📞 703-919-2976 ✉ jackhogan11@gmail.com 🌐 www.jackhogan.me 🐙 gh/lmTheSquid 📄 in/jackhogan11 📍 DC Metro, VA / Lafayette, IN

Double major in Computer Science and Artificial Intelligence with extensive experience in software engineering, AI/ML, and leadership roles in tech organizations.

Experience

Leidos Innovation Center

High-Performance Software Intern

📅 Summer 2024 – Present 📍 Arlington, VA

- Created and refined GPU-based signal processing algorithms in CUDA, Rust, and Python for real-time applications.
- Developed a real-time machine learning system to lock onto hidden radar targets using PyTorch.

Peraton

Software Engineering Intern

📅 Summer 2023 – Present 📍 Chantilly, VA

- Expanded ServiceNow's Artificial Intelligence module using JavaScript and Document Intelligence.
- Authored and presented a whitepaper on systems and processes developed, managing daily intern standups.

Alluja LLC

Founder

📅 2020 – Present 📍 Chantilly, VA

- Leading multiple technical projects, including mobile apps (SwiftUI), libraries (Swift, Rust), backend servers (Rust, Python), frontends (Svelte, Leptos), and BetterDiscord plugins with 5,000+ users.

Research & Leadership

Detecting Source Code Plagiarism in Submitted Assignments

Lead Researcher

📅 Spring 2023 – Present 📍 West Lafayette, IN

- Leading a faculty-selected research team focused on solutions for source code plagiarism in Purdue's Computer Science program.
- Researching Abstract Syntax Trees, source code lexing and parsing, and machine learning techniques.

Purdue Hackers

Engineering Division Lead

📅 Jan 2024 – Present 📍 West Lafayette, IN

- Overseeing all engineering projects, managing time and budget restrictions while keeping engineering officers on pace.
- Managing the infrastructure for the Passports initiative, including authentication and management systems written in Rust and TypeScript.

Purdue Orbital

Avionics Design Lead

📅 Jan 2023 – Jan 2025 📍 West Lafayette, IN

- Led a team of 15+ members to create a custom fault-tolerant system for rocketry systems.
- Developed systems for collecting data for avionics missions using Rust.

Objective

Aspiring researcher with a passion for AI/ML, low-level programming, and full-stack development. Seeking opportunities to leverage technical expertise, leadership skills, and a commitment to innovation in challenging and impactful projects.

Education

Purdue University Honors College

Bachelor of Science Candidate in Computer Science, Artificial Intelligence; Minor: Mathematics

📅 Fall 2022 – Spring 2026 📍 West Lafayette, IN

- 3.75 GPA, 1550 SAT
- Relevant Coursework: Data Structures, Machine Learning, AI, Analysis of Algorithms, Abstract Algebra

Skills/Exposure

- | | | |
|--------------|---------------|--------------|
| • Java | • C | • Leptos |
| • C# | • C++ | • GStreamer |
| • Python | • SvelteKit | • Unix |
| • SQL | • Django | • Systemd |
| • MongoDB | • Actix Web | • PulseAudio |
| • Swift | • Flask | • CUDA |
| • Kotlin | • Spring Boot | • CUTLASS |
| • Svelte | • Express | • NumPy |
| • JavaScript | • SwiftUI | • PyTorch |
| • TypeScript | • UIKit | • Pandas |
| • HTML | • Jetpack | • Burn |
| • CSS | • Compose | • SciPy |
| • Rust | • React | • Astro |

Tools

- EC2 • ECS • S3 • Docker • Docker Compose

Associations

- Purdue Orbital
- Purdue Hackers
- Purdue University Ski & Snowboard Club
- Boiler Book Club
- Purdue Theme Park Engineering & Design
- Mensa International