Jack Hogan

DC Metro | West Lafayette, IN
+1 (703) 919-2976
jackhogan11@gmail.com
https://jackhogan.dev
GitHub/ImTheSquid
LinkedIn/Jackhogan11

WORK EXPERIENCE

SUMMER 2024

Leidos Innovation Center
Software Engineering Intern

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

SUMMER 2023

Peraton
Software Engineering Intern

- Led the expansion of **ServiceNow**'s new **Artificial Intelligence** module using **JavaScript** and Document Intelligence including custom input, parsing, and customer interfaces
- Authored and presented a whitepaper on systems and processes developed while managing daily standups with the intern team

2023 – PRESENT

Purdue Orbital
Avionics Design Lead

Leading a team working to create a fault-tolerant and compact system to activate rocketry systems while collecting data for avionics missions with **Rust**.

2024 – PRESENT

Purdue Hackers
Passport Infrastructure Officer

Spearheading and managing all infrastructure related to our Passports initiative, including the authentication and management systems written in **Rust** and **TypeScript**.

2020 – PRESENT

Alluja LLC
Founder

Alluja LLC is a dynamic startup involved in multiple technical projects and initiatives including mobile apps written in **SwiftUI**, libraries in **Swift** and **Rust**, backend servers in **Rust** and **Python**, frontends in **Svelte** and **Leptos**, and BetterDiscord plugins in **TypeScript** with over 5,000 users.

EDUCATION

2022-2026 **Bachelor of Science Candidate**
Purdue University Honors College
Double Major: Computer Science & Artificial Intelligence
Minor: Mathematics
3.54 GPA, 1550 SAT

RESEARCH

"Detecting Source Code Plagiarism in Submitted Assignments"

Selected for faculty research position leading a group of five focused on developing solutions for source code plagiarism in the Purdue Computer Science program . Research areas include Abstract Syntax Trees, source code lexing and parsing, and machine learning.

PROGRAMMING LANGUAGES

BACKEND	Java, C#, Python, SQL, MongoDB
FRONTEND	Swift, Kotlin, Svelte, JavaScript, TypeScript, HTML, CSS
LOW-LEVEL	Rust, C, C++

FRAMEWORKS

BACKEND	SvelteKit, Django, Actix Web, Flask, Spring Boot, Express
FRONTEND	SwiftUI, UIKit, Jetpack Compose, React, Svelte, Leptos
LOW-LEVEL	GStreamer, Unix, Systemd, PulseAudio, CUDA, CUTLASS
AI/ML	NumPy, PyTorch, Pandas, Burn, SciPy

PLATFORMS & SERVICES

- AWS EC2, ECS, S3, SNS, SQS, Rekognition, SES, Cloudfront, Route 53, ALB, VPC, DocumentDB, IAM, PrivateLink
- Docker, Docker Compose

AWARDS

2022 **Outstanding Graduate in Technology**
Chantilly High School

CLUBS & ASSOCIATIONS

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