

# Alston Dsouza

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## EDUCATION

### Green River College

Bachelor of Applied Science in Software Development

Seattle, WA

Expected June 2026

## EXPERIENCE

### Full-Stack Web Developer Intern

Jan 2025 – Present

Green River College

Seattle, WA

- Improved IT instruction tools by designing **full-stack applications** with HTML, CSS, PHP, and MySQL, enhancing usability for students and staff.
- Delivered stable and scalable solution by participating in weekly team reviews, increasing **operational efficiency** for faculty and student tools.

### CodeDay MicroInternship

Oct 2024 – Dec 2024

CodeDay (Intern)

Seattle, WA

- Delivered reliable test coverage for **OpenEnergyDashboard** by implementing **JavaScript test cases**, resulting in successful merges and improved repository structure.
- Increased team efficiency by aligning with **agile practices**, participating in weekly sprints, and collaborating on tool selection to accelerate delivery.

### IT Operations Intern

Jun 2024 – Aug 2024

PACCAR Parts

Renton, WA

- Developed a FAQ chatbot web app for employee ticketing supporting using Azure AI Search, Open AI, and Rest APIs, writing 3,000+ lines of Python code in a **RAG framework** to improve automation.
- Boosted team efficiency by integrating scraped JSON data via REST APIs and supporting 700+ users with technical assistance, asset management and Windows infrastructure support.

### Student Help Desk Support

Oct 2022 – Aug 2023

Green River College

Auburn, WA

- Reduced **system downtime by 30%** by troubleshooting technical issues on Windows, macOS, and security platforms.
- Boosted user satisfaction by documenting recurring issues and **optimizing IT workflows**, leading to quicker resolutions and fewer repeated errors.

## PROJECTS

### Salamander Tracker (Green River College) | React, Express, JavaScript, Maven, and Docker

June 2025

- Engineered a full stack video processing pipeline using React, Express, Java and Docker, to support research tracking of salamanders, enabling frame level analysis in ecological environments.
- Developed a customer video binarization algorithm using JavaCV and Euclidean color distance, to identify and extract morphological components, improving detection accuracy in low contrast wildlife footage.
- Collaboration between Green River College and The Wilburn Lab at The Ohio State University.

### Ticket Assistant RAG Application (PACCAR Parts) | Python, Azure Open AI, REST API, Gradio

June 2024

- Developed a Retrieval-Augmented Generation (RAG) chatbot improving employee ticket support accuracy and efficiency.
- Designed a Gradio-based UI and automated data scraping into JSON, real-time searchable response for over 700 employees.

### AAS Chatbot Development (Green River College) | Microsoft Copilot, Azure Bot Service

June 2024

- Built an AI-powered chatbot to assist Running Start Department inquiries, increasing automation and reducing response times.
- Integrated generative AI to streamline student communication and improve content delivery.

### Expo Digital Accreditation System (Expo 2020, Dubai) | Java, Spring Boot, MySQL

Sep 2021

- Developed a secure access system with role-based control, ensuring safe and efficient entry for VVIP guests.
- Delivered on-site technical support and maintenance for live high-traffic events.

## TECHNICAL SKILLS

**Languages:** Java, Python, JavaScript, SQL, HTML/CSS, PHP, C++, PHP

**Frameworks/Platforms:** Node.js, Flask, Spring Boot, Azure Bot Service, Microsoft Copilot, Express.js, Maven

**Tools & Technologies:** Git, Docker, REST API, Azure OpenAI, Azure AI Search, Gradio, Google Cloud Platform, Visual Studio Code, IntelliJ, MySQL

**Libraries:** Pandas, NumPy, Matplotlib, Junit, JavaCV, JUnit