

# SAHRAN ASHOOR

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## EDUCATION

**University of Houston**, *Bachelor of Science, Computer Engineering* | Houston, TX GPA: 3.89 / 4.0 Aug 2023 - May 2027

Coursework: Programming & Data Structures | Circuit Analysis I | Engineering Mathematics | Discrete Mathematics | Computing & Problem Solving for Engineers | Introduction to Programming 1 & 2

## SKILLS

Languages Python, C, C++, C#, Java, JavaScript, Swift, Lua, MATLAB, HTML, CSS, JSON, YAML, XML, LaTeX  
Technologies Next.js, Node.js, TensorFlow, PyTorch, OpenCV, React, Flask, Angular, Unity, Raspberry Pi, Arduino

## EXPERIENCE

**University of Houston**, *PROMES Workshop Facilitator* | Houston, TX Aug 2024 - Present

- Led instruction and facilitation of a 1-credit hour workshop section for ENGI 1331 - Computing & Problem Solving for Engineers.
- Provided both lecture-based instruction and one-on-one tutoring for students on **MATLAB**-based topics.
- Held twice a week, I ensure 50+ student needs are met by curating custom-tailored materials and study guides that align with lecture curriculums.

**Amazon Web Services**, *Software Development Engineer Intern* | New York, NY May 2024 - Aug 2024

- Wrote and published DynamoDB DAX Cluster controls for the Controls Tower platform, using **AWS Guard** and **CloudFormation** to interact with encryption in transit ('TLS'). CFN stacks deploy in supported global regions to ensure host-client data security.
- Developed a **Python** based, Git-inspired command-line-interface toolset for proactive controls, automating client-host interaction with a tailored notification system. The CLI tool is usable across the company, and deployed at-will in control dev environments under AWS Governance.
- Worked as the sole SDE in a team of security research engineers, and facilitated communication with an adjacent software team. Controls I developed under **DynamoDB** were pulled from a back-catalogue of team needs that were most suitable for an SDE skillset.

**Engineers Without Borders UH**, *Travel Intern & Technology Lead* | Valle Valerio, NI Sept 2023 - June 2024

- Travelled as part of a 7-person to the community and implemented a water pump redesign solution with approval of local leadership.
- Design featured a robust circuit layout to interface with a 220VAC power supply, incorporating existing pump systems. Ensured compliance with electrical safety standards, conduit layout, and grounding for long-term reliability in an outdoor environment.
- Led and trained a team of 5 developers to continuously improve and update the official EWB-UH webpage. Established an administrator login system with a **Django** back-end and **MySQL** database.

**Olezka Global**, *Security Systems Intern* | Houston, TX Sept 2023 - May 2024

- Conducted in-depth network traffic analysis using **Wireshark** and to identify and troubleshoot potential security vulnerabilities within client systems.
- Presented to school leadership at several Houston locations prior to its opening in January 2024.

## PROJECTS

### SortSite

- React**-based **Node.js** web application that offers interactive algorithm visualization tools. Supported algorithms include quick sort, merge sort, and bubble sort.
- Additional pathfinding visualization tool is available, which allows users to interact with weighted pathfinding methods like A\* and Dijkstra.

### LiDAR-CV

- Computer vision navigation software built for a **Raspberry-Pi 3B+** omni-movement drone.
- Benewake TFmini LiDar sensor utilizes the **OpenCV** library to gather detailed environment data on a vertical 225 degree axis.

### Decipher.AI

- Designed a **Python** application that utilizes the **OpenAI** API to recognize and calculate handwritten math expressions on a **Tkinter** panel.

### Portfolio Website

- Developed a **Next.js** web application to display my projects, with deployments managed through **Vercel**.

## Achievements

2023 Generation Google Scholarship - \$10,000

1 of ~50

2023 Amazon Future Engineer Scholarship - \$40,000

1 of ~400