Hamza Shaikh
Raleigh, NC 27606 | hmshaikh19@gmail.com | https://www.hamzamshaikh.com

Education: Purdue University – West Lafayette - Bachelor of Science in Computer Science - May 2023 - GPA: 3.67
Concentrations: Machine Intelligence, Security

Work Experience:

Invici **West Lafayette, IN**
Software Engineer (Part Time) **March 2023 - Present**

- Built and deployed Shopify React app to allow merchants to upload invoices and generate near-completed product listings, saving digital retail merchants ~8 hours a week in listing new products.
- Developed and deployed a Flask backend to handle information extraction and missing-field completion queries for invoices.
- Utilized detection transformer (DeTr) networks, optical character recognition (OCR), large language models (LLMs) to create a Flask server to handle the queries.
- Won a $10,000 grant and co-founded the company to sell the packaged tool.
- Met with customers to get and implement feedback on features suiting their needs.

Cisco Systems **RTP, NC**
Software Engineering Intern - Vulnerability Management **May - August 2022**

- Developed and deployed a rating synchronization tool to allow Cisco to integrate Kenna's (an acquired company) vulnerability rating system, and synchronize vulnerability rating discrepancies between the two systems.
- Solved all 20,000,000+ vulnerability rating discrepancies in under 2 hours after deployment to production server and kept all future changes harmonized.
- Developed and deployed a tool giving security analysts the capability to fetch information about specified threat groups / vulnerabilities and auto-generate reports by simply providing a name or id related to the threat, reducing the time to generate a threat information report from ~10 minutes per threat to ~5 seconds per threat.

Cisco Systems **RTP, NC**
Software Engineering Intern - Threat Intelligence **May - July 2021**

- Created a tool to automatically parse through threat intelligence cases for specific indicators of concern (IOCs) and share the IOCs on MISP, a malware and threat information sharing platform, giving analysts the capability to share IOCs in seconds instead of manually compiling and sharing IOC reports.
- Conducted technical analysis of company computers, analyzing traffic via splunk queries, looking through logs, and found context surrounding such cases to determine if machines were infected with malicious software or not.
- Proposed a restructure of relevant proprietary tools to make analysis more efficient, using automation to reduce redundant tasks with precompiled information.

WootCloud Cybersecurity **San Jose, CA**
Data Science Intern **June 2020 - March 2021**

- Automated the process of collection and identification of wireless devices made by different manufacturers registered in the FCC, storing the information in MongoDB for future cross-reference searches and classification.
- Reduced the time spent collecting information from hours done manually to seconds done by automatically, allowing the company to collect data on 100+ different manufactures per day.
- Created data sets for the training of ML models to classify devices into different categories using metadata and photo identification, then retrained ML models using such data sets.

Personal Projects

LogicNerve

- Lead a team of multiple students in designing and producing an online platform where device developers could build and deploy custom medical IoT devices on a HIPAA compliant platform without needing to develop server infrastructure.
- Created microservice modeled backend servers to handle authentication, data uploads, device registration, organization management, and CRUD requests. Deployed onto AWS and GCP.

Pose Estimation Tracking Therapy

- Created unity app to allow users to track mobility for physical therapy via pose estimation of webcam feed.
- Wrote code to construct a baseline to extrapolate 3d coordinates from 2d camera coordinates and estimated distance in real time.

Skills: Python, Pytorch, JavaScript, C, Java, Typescript, MongoDB, NodeJS, React, Docker, Git, Splunk, NGINX, AWS, GCP, HuggingFace, SaaS, Web Scraping