Rayhan Noufal Arayilakath

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Summary

- Honors Student at Purdue University; **Cybersecurity Class of 2027**.
- Self-taught **full-stack software engineer** seeking opportunities to learn and leverage expertise in complex systems design and development, data analysis, machine learning, and software development.
- Proficient in Typescript, Python, Golang, and Java with practical experience in cloud technologies and scalable architectures.
- Experienced in building impactful commercial tech solutions and promoting equitable technology use.

Experience

Jumpseat, West Lafayette, IN Aug 2024 – Present

Full-stack Software Engineer

- Collaborated with and led cross-functional teams to align technical development with business objectives, driving product success with **three customer and enterprise product launches** in Q4.
- Designed, containerized, and deployed the backend for enterprise-grade booking management software using Docker and Kubernetes on AWS, ensuring scalability and reliability for dozens of users.
- Migrated a large legacy codebase and database models to modern standards and technologies (Next.js, PostgreSQL), improving system maintainability and performance.
- Implemented critical features in React, Next.js, and Typescript that enhanced user experience and streamlined customer operations, including live shuttle tracking, driver clock-in/clock-outs, simplified travel planning, and faster customer check-in.
- Engaged in B2B client interactions to tailor software solutions, directly contributing to **securing the company's first enterprise contract** with Purdue's largest shuttle provider.

Replit, Foster City, CA Mar 2023 – May 2024

Software Engineering Intern, Anti-Abuse Operations

- Highly regarded for my hard work, dedication, and ability to deliver results, leading to **four contract renewals** and continued collaboration past the internship season (1+ year of experience).
- Developed an automated solution to moderate community in Node.js and Golang with 20+ identifiers and response pipelines, scaling to over 30 channels of data piped into the system from various platforms.
- Organized and led a team of 10 community moderators in human review of flagged content, decreasing labor of internal staff and freeing up engineering time.
- Applied data analysis techniques in Python and SQL to identify and mitigate emerging abuse vectors, decreasing response times, mitigating the impact of resource abuse, and **rescuing $3500 in losses every month**.
- Developed a multithreaded scraper/invalidation system to detect and revoke exposed API tokens in published projects, ensuring user safety and leading to later iterations where the editor automatically hides pasted tokens. Directly responsible for **ensuring the safety of 6000 customers**.
- Built a dashboard with Next.js and Python to visualize flagged user-generated content, streamlining the moderation process for community moderators and internal staff.
- Improved an internal tool written in Python that handles takedowns of phishing websites, expanding on its parsing functionality and scanning for other types of malicious content such as malware and copyright violations. Automatically **took down over 2000 cases** of phishing websites over a year.
- Implemented advanced abuse detection systems using Hex, Apache Dataflow, and micro-services in Node.js, over large datasets and regression models to identify abusive behaviors exceeding certain thresholds.
- Authored and effectively issued DMCA takedown requests in adherence to legal protocols, freeing up legal resources and staff.
- Automated Trust & Safety support channels, creating pipelines for user tickets to immediately get resolved.
- Negotiated with third-party security vendors for the most beneficial deals on API integrations with security systems.

Education

Purdue University, West Lafayette, IN May 2027
Cybersecurity, B.S. with Honors

- Completing coursework in cybersecurity, data structures and algorithms, and software engineering
- Undergraduate Researcher with Purdue Tech Justice Lab
- Treasurer for Purdue Hackers (purduehackers.com)

Westlake Academy, Westlake, TX June 2024
International Baccalaureate Diploma

- Honor Roll 2020-2024
- IB Computer Science Student of the Year 2024
- National Merit Commended Scholar
- President – Westlake Academy Computer Science League Team
- Founder – Westlake Academy Hack Club (hackclub.com)
- Founder – Westlake Academy Audio/Video Broadcasting team

Skills

Languages: Javascript/Typescript (5yrs), Python (5yrs), SQL (4yrs), Golang (3yrs), Java (3yrs), Rust (2yrs), C (1yrs)
Software: AWS, GCP, Langchain, Docker, Kubernetes (K8s), Tensorflow, JupyterNotebook, Next.js, Tailwind CSS, Git, Bash

Other Work & Activities

Purdue Tech Justice Lab, West Lafayette, IN Aug 2024 – Present
Undergraduate Researcher

- Collaborated on **interdisciplinary research** focusing on the intersection of technology, law, and social justice, analyzing the impact of digital systems on marginalized communities.
- Conducted literature reviews and synthesized findings on topics related to **data privacy, algorithmic bias, and cybersecurity ethics**, contributing to team publications and presentations.
- Engaged with external stakeholders such as advocacy groups and policymakers in the Greater Lafayette area, translating complex technical findings into actionable insights and supporting equitable tech policy development.

Freelance Software Engineer, Dallas, TX Oct 2022 – Jan 2023

- Pioneered the use of the Replit Bounties program, gaining hands-on professional experience in real-world project development as a self-taught software engineer.
- Developed web applications such as e-commerce platforms, internal search tools, farm management tools, and project management dashboards using Java, Node.js, Spring Boot, Python, Golang, React, Angular, and PostgreSQL streamlining client operations and improving business processes for users.
- Integrated cross-platform solutions to solve complex problems across diverse tech stacks, decreasing delivery time and project versatility.