Atreya Bain

atreyabain@gmail.com | 0 7467 366 155 | kekvrose.me | linkedin.com/in/atreyabn | github.com/chrisvrose

Overview

Software Engineer with experience in securing distributed systems, automation, and programming languages. Passionate about building secure and scalable solutions with a keen eye for detail and usability.

Education

University College London, M.S. - Software Systems Engineering   2024 - Present
- Relevant modules: Requirements Engineering and Software Architecture, Computer Security, Malware

R. V. College of Engineering, B.Tech - Computer Science & Engineering   2018 - 2022
- GPA: 9.07/10

Experience

Postgraduate Teaching Assistant, University College London – London, UK   Jan 2025 - Present
- Grading for module Compilers.
- Provided feedback to students on courseworks.

Software Engineer, Cisco Systems – Bangalore, IN   Aug 2022 - Sep 2024
- Collaborated with team on application security features for Cisco IOT Control Center (IoTCC), such as Single Sign On support using SAML and user security policies.
- Spearheaded extraction and centralization of application secrets used by IoTCC applications in 20+ lab and production environments into centralized Vault, reducing emergency dot releases by ~40%.
- Built POCs and contributed to APIs and monitoring for an OAuth 2.1 microservice deployed on K8s clusters.
- Optimized automated synchronization of application secrets and SSL Certificates using Jenkins pipelines, reducing release deployment times by ~25%.
- Manage Spring Cloud Config Servers on 20+ on-prem and newly created cloud (AWS) environments.
- Led design and implementation of a CAPTCHA solution across shared environments to mitigate bot activity in multi-environment deployments.

Software Engineering Intern, Cisco Systems – Bangalore, IN   Feb 2022 - Jul 2022
- Developed a solution in collaboration with team for managing and externalizing SSL certificates for Cisco IoTCC, reducing creation of emergency releases by ~40%.
- Implemented git hooks to collect ownership metadata of SSL Certificates to trace team ownership ~75% faster.

Software Engineering Intern, Lexis-Nexis Risk Solutions – Atlanta, US (Remote)   May 2021 - Aug 2021
- Extended HSQL to introduce Big-Query like procedures and strongly-typed variables.
- Added syntax supporting 15+ graphing methods, user-created machine learning models and external ECL code.
- Awarded the Community Choice Award in HPCC Systems Poster Competition 2021.

Backend Development Intern, Revagram – Bengaluru, IN   Sep 2019 - Nov 2019
- Developed and tested RESTful APIs for learning materials management.

Projects

IEEE RVCE Student Chapter Website - github.com/IEEE-RVCE   Jul 2020 - Dec 2022
- Led the Back-end team for developing the IEEE RVCE Student chapter website, receiving 2 awards in the IEEE Student Branch Website Contest in 2021 - Winner at the Global Level and Runner up at R10 level.
- Led the web team from 2021, championing CI/CD and design reviews to cut iteration times by ~20%.
- Technologies: Express.JS, PostgreSQL, Docker, React, Github Actions, Github Pages, Oracle Cloud.

HSQL - HPCC Structured Query Language - github.com/hpcc-systems/hsql   Jan 2020 - Jul 2020
- Designing HSQL – a language enabling a familiar SQL-like interface for data analysis in HPCC Systems.
- Created a compiler with a ANTLR-based frontend, emitting ECL code and a VSCode extension for supporting development in HPCC Systems clusters using HSQL.

Skills

Programming Languages: Java, Typescript/JavaScript, Python, C++, C, Rust, PHP
Frameworks: Spring Boot, Spring Cloud, React, Next.JS, Sencha EXT.js, HTML5
Databases: PostgreSQL, Oracle DB, Redis, MongoDB, MySQL
Technologies: Docker, Kubernetes, Hashicorp Vault, Oracle Cloud, AWS, git, ANTLR, Kestrel (MQ)