

Dhruv Sanagaram

dhruvsanagaram@gmail.com • 669-256-8543 • linkedin.com/in/dhruvsanagaram/ • github.com/dhruvsanagaram

EDUCATION

University of Illinois, Urbana-Champaign | Urbana, IL

Expected Graduation December 2024

B.S. - Computer Engineering

GPA: 3.40

Coursework: Database Systems, Distributed Systems, Data Structures, Algorithms, Computer Systems Engineering, Artificial Intelligence, Machine Learning, GPU Systems Programming, Internet of Things, Linear Algebra, Statistics and Probability I

SKILLS & TECHNICAL TOOLS

Languages: Java, Typescript/Javascript, Python, GraphQL, MySQL, Terraform, C++, C

Technologies: SpringBoot, React.js, Node.js, AWS, Postgres, Cassandra, Redis, Docker, Kafka, Kubernetes, Selenium, QMetry, Datadog, PyTorch, CUDA, Postman, Git

EXPERIENCE

Software Engineering Intern | Roche Information Systems

May 2024 - Aug 2024

- Developed feature for health care providers to create, clone, and deactivate care programs using **React.js**, **SpringBoot**, **Spring Cloud/GraphQL**, **HAPI FHIR** datastore across 6 services and microfrontends
- Automated integration tests for Camunda workflow engine execution with **Docker** TestContainers, **Kafka**, and **Kubernetes**
- Fixed and tested functional failures in claim based access control system using **SpringBoot**, **Selenium**, and **QMetry**
- Provisioned SonarQube code quality gate checks with **Python** and **Terraform** scripts

Artificial Intelligence Undergraduate Researcher | UIUC Intelligent CAT Lab

January 2024 - June 2024

- Used **KLEE** symbolic execution engine to perform automated test generation for data preprocessing
- Used **Python** for data preprocessing in pseudocode to code LLM translations

Software Development Intern | Intercontinental Exchange

May 2023 - Aug 2023

- Developed **REST APIs** for Escrow Analysis & Property Insurance microservices used by end-users with **Java SpringBoot**, **React.js**
- Wrote end-to-end penetration testing scripts with **Cypress.js** and secure development training assignments with **Python**
- Worked in an Agile development environment while following test-driven-development and secure coding practices

PROJECTS

Illinix Operating System | C, x86 Assembly

- Developed operating system in **C** and **x86 Assembly** complete with device drivers for terminals, file system, and PIC amongst other devices. Supports interrupts, exceptions, and execution of user-level programs with system calls
- Supports switching between multiple terminals and round-robin scheduling of user-programs. Complete with virtualization, segmentation, synchronization of kernel programs with each other
- Coordinated paper-readings and Agile workflow for GitOps as part of ECE391 coursework

MyYoutubeAnalytics | Flask, React.js, MySQL, Google Cloud Platform, Figma

- Designed and developed **CRUD** application that evaluates viewership and performance of registered Youtube channels
- Utilized Python **Flask** to implement REST API endpoints and business logic. Developed **MySQL** stored procedures, triggers, and transactions to facilitate database operations
- Utilized **React.js** techniques like windowing and memoization to improve frontend performance by 6 seconds