Rajit Banerjee

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TECHNICAL SKILLS

Languages: TypeScript/JavaScript, Java, Bash, Python Frameworks: Node.js, Express, React, Spring Boot, GraphQL

Tools: AWS, Docker, Unix, Git

Work Experience

Amazon Web Services

Dublin, IE

Software Development Engineer | AWS, TypeScript, Node.js/React, Java

Jul. 2022 - Present

- Product (SSO, Identity and Authentication): AWS Security, Foundational Security and Dedicated Clouds (FSDC), Amazon Foundational Security Services.
- Defined infrastructure as code (IaC) and implemented automated testing to enable continuous delivery and release for multiple full-CD pipelines, in order to eliminate manual effort and intervention when moving new code changes from version control to production.
- Assisted customers with service onboarding as well as business critical problems during on-call duty for a Tier 1 service.
- Improved customer onboarding experience through bug fixes, UI/UX improvements and additional feature development for the service's customer-facing portal.

Software Development Engineer Intern | AWS, TypeScript, Node.js/React Mar. 2021 - Aug. 2021

- Project (campaign automation and management): Designed and implemented a campaign automation tool for Amazon Enterprise Engineering (Identity and Authentication).
- Integrated the campaign manager with Amazon's internal ticketing system to minimise human error and communication time during campaigns with over 5000 direct customers.
- Developed a Node/Express back-end API with React front-end components, following microservice architecture.
- Built and deployed infrastructure securely with AWS services including Lambda (serverless), DynamoDB, S3, StepFunctions, CloudWatch, and so on.

Insight SFI Research Centre for Data Analytics

Dublin, IE

Research Intern | Python (Jupyter), OpenCV, Docker, Bash

Jun. 2020 – Aug. 2020

- Project (human body pose estimation): Performed experiments with multiple pose estimation models to estimate the body keypoints of novice athletes (runners) using pre-recorded input videos.
- Designed Bash scripts and Docker containers to automate video processing on a remote server.
- Analysed time-series data and computed a variety of body pose angles from video frames to assist runners with maintaining optimal form and posture.

Personal Projects

- Vax Warden: Secure COVID-19 vaccine registration system built with Java (Spring Boot), React.js and Docker.
- Microservice Design Patterns: Final Year Project at UCD (2022). Performance analysis of design patterns in microservice architecture, demonstrated using Java (Spring), Apache JMeter, Docker Compose and Python.
- Distributed Airways: Flights metasearch engine simulation using a Java (Spring Boot) backend, GraphQL for API design, React (TypeScript) frontend and Docker/Kubernetes for deployment.

EDUCATION

University College Dublin

Dublin, IE

BSc (Hons.) Computer Science with Data Science

Sep. 2018 – Jun. 2022

- **GPA:** 4.13/4.20 (First Class Honours)
- Relevant Coursework: Data Structures, Algorithms, Distributed Systems, Secure Software Engineering, Cloud Computing, Performance Engineering, Programming for Big Data, Machine Learning
- Honours and Awards: John Kelly Memorial Medal, UCD Computing Award, Ad Astra Academic Scholarship, Global Undergraduate Scholarship, BSc Computer Science Scholarship (Stage 2, Stage 3, Stage 4), Science Academic Award (2020, 2022)