Rajit Banerjee

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Technical Skills

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

Deployment, Cloud & Version Control: AWS, Docker, Git

Databases: MySQL, DynamoDB, MongoDB

Work Experience

Amazon Web Services

Dublin, IE

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

Jul. 2022 - Present

• Enterprise Identity and Authentication.

Software Development Engineer Intern | AWS, TypeScript, Node.js, React.js 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.

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: 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)