

# Rajit Banerjee

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## TECHNICAL SKILLS

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**Languages:** TypeScript/JavaScript, Java, Bash, Python  
**Frameworks:** AWS Cloud Development Kit (CDK), React, Spring  
**Tools:** AWS, Docker, Unix, Git

## WORK EXPERIENCE

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**Amazon Web Services** Dublin, IE  
**Software Development Engineer** | AWS, TypeScript, Node.js/React, Java Jul. 2022 – Present

- Product (Amazon Internal Authentication): AWS Security, 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

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- **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

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**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)