

Arindaam Roy

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Education

University of California, Davis

Davis, CA

MSc IN COMPUTER SCIENCE

Sept. 2021 - Exp. May 2023

• Courses: Software Engineering, Distributed Database Systems, Distributed File System, Artificial Intelligence, Algorithms

4.0/4.0 GPA

Delhi Technological University

Delhi, India

B. TECH IN INFORMATION TECHNOLOGY

Aug. 2016 - May 2020

Work Experience

Block Inc. (Formerly Square)

San Francisco, CA

SOFTWARE ENGINEER INTERN - DATA STREAMING PLATFORM TEAM

Jun. 2022 - Exp. Sep. 2022

- Technologies: Python, Kafka, AWS DynamoDB, Snowflake, Redis, Vue.js, SQL, Kubernetes
- **Extended support for Dynamodb and Kinesis** source for near-realtime data pipelines and **deployed to production**.
- **Led a team of 4** to develop a collaborative playlist prototype for TIDAL and **won the internal hackathon**.

Exploratory Systems Lab, UC Davis

Davis, CA

GRADUATE STUDENT RESEARCHER

Mar. 2022 - Jul. 2022

- **Owned and built a Python driver** for creation and transfer of UTXO-like assets in a blockchain database.
- **Led a team of 3** to develop a NFT marketplace prototype on top of the python driver.

Kadmik (Early Stage EdTech Startup)

Remote, India

FOUNDING TEAM MEMBER & SOFTWARE ENGINEER

Jan. 2021 - Sept. 2021

- Technologies: Python, Fastapi, Postgresql, Docker, REST apis, AWS, Redis, OOP, Celery, Websocket, Asyncio, JWT
- Built the system architecture, api security, and backend game engine of **Kadmik** 🚀 from scratch.
- **Delivered 2M+ quizzes within 10 months** and reached a **valuation of \$1.8M**.
- **Slashed API latency by 75%** by optimising SQL queries. Instrumented and profiled the backend code to identify bottlenecks.

ICICI Lombard General Insurance Co. Ltd.

Bangalore, India

SOFTWARE DEVELOPER

Aug. 2020 - Sept. 2021

- Technologies: Python, AWS, REST apis, Flask, Neo4j, Prometheus, Grafana, Lambda, S3, Redshift, Kinesis - Firehose
- Constructed a **data pipeline using AWS services** for click-stream analysis using Lambda, S3, Firehose and Redshift.
- **Reconfigured a monitoring and alerting system** with custom metrics backed by Prometheus and Grafana.
- **Owned and designed a microservice** for a discount engine which **made discounts easily configurable** and **reduced reconfig time by 80%**.

Google Summer of Code, DeepMind

Remote, USA

STUDENT SOFTWARE DEVELOPER

Jun. 2020 - Aug. 2020

- Technologies: Python, Bash, TravisCI, CI/CD, Configuration Management, Helm, GCP, Azure, Docker, Multithreading, PyTest, OOP
- Made Pull Requests on GitHub to **add new features along with unit tests** to **Kapitan** 🚀 and resolve pending issues.
- **Enabled inventory reusability** by programming a federated remote inventory system.
- **Expanded secret management** by integrating 2 secret backends for GCP Secret Manager and Azure KMS.

Projects

Centaur - Unmanned Ground Vehicle | Design Report 📄

ROBOTICS TEAM PROJECT | PYTHON | ROS | OS HARDENING | RISK MANAGEMENT | SSH | DHCP | LINUX

- Worked in a group of 10 to securely develop an autonomous bot. Headed the Information Security division to make the bot NIST RMF compliant; **Awarded the 5th place globally** in the cyber challenge of the Intelligent Ground Vehicle Competition 2019 held at Oakland University MI, USA

GetvacIndia | GitHub Link 📄

FULL-STACK APPLICATION | PYTHON | JAVASCRIPT | REDIS | CI/CD | MONGODB | CELERY | DOCKER | AWS EBS

- Developed a scalable external-link-alt vaccine email notification scheduler using Fastapi, MongoDB, Celery, React, AWS EBS for hosting and Redis as message broker. **Catered to over 1,000 subscribers**.

Skills

Programming

Python · JavaScript · C++ · Bash · LaTeX

Frameworks & Tools

FastAPI · React.js · Docker · AWS · SQL · gRPC · Kafka · Neo4j · CI/CD · Redis · Git

Linux Certifications

Red Hat Certified Engineer · Red Hat Certified System Administrator · Certification ID: 180-207-482

Interests

Distributed Systems · Linux · Automation · Security · Blockchain · Piano