Arindaam Roy

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Skills

Programming	Python · Kotlin · JavaScript · Bash · LaTeX
Frameworks	FastAPI · gRPC · Temporal · Datadog · JVM · Guice · Goose (AI Agent)
Data Platforms	Kafka · Kafka Connect · Debezium · Iceberg · Airflow
Databases	PostgresSQL · DynamoDB · Snowflake · Redis
DevOps	AWS · GCP · CI/CD · Git · Docker · K8s · Helm · Terraform
Interests	Distributed Systems · AI Agents · Linux · Data Streaming · Security · Blockchain · Piano

Work Experience

Block Inc. (Formerly Square)   *NY, NY*

SOFTWARE ENGINEER - DATA MESH PLATFORM   *Jul. 2023 - Present*

- Working on high-traffic distributed systems and data mesh infrastructure with a focus on **change data capture (cdc) and Iceberg**.
- Expanded the near-real time data ingestion platform in terms of new data sources/sinks, observability, and alerting.

SOFTWARE ENGINEER INTERN - DATA STREAMING PLATFORM   *Jun. 2022 - Sept. 2022*

- **Extended support for DynamoDB** as sources for near-real-time data pipelines and **deployed to production**.
- Notably, **partnered with Confluent** to rigorously test their DynamoDB Kafka connector, providing crucial feedback that accelerated its General Availability (GA) and ensured its production readiness.
- **Led a team of 4** to develop a collaborative playlist prototype for TIDAL. **Won the internal hackathon and published a patent**.

Kadmik (Early Stage EdTech Startup)   *Remote, India*

FOUNDING TEAM MEMBER & SOFTWARE ENGINEER   *Jan. 2021 - Sept. 2021*

- Built the system architecture, api security, and backend game engine of **Kadmik** ⌕ **from scratch** using Python and FastAPI.
- **Delivered 2M+ quizzes within 10 months** and reached a **valuation of $1.8M.**
- **Slashed API latency by 75%** by optimising SQL queries and asynchronization. Instrumented and profiled the backend to identify bottlenecks.

ICICI Lombard General Insurance Co. Ltd.   *Bangalore, India*

SOFTWARE DEVELOPER   *Aug. 2020 - Sept. 2021*

- 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%**.

Open Source Contributions and Projects

Apache ResilientDB (Incubating)

INITIAL COMMITTER AND PODLING PROJECT MANAGEMENT COMMITTEE MEMBER (PPMC)   *Oct. 2023 - Present*

- **DRI for Python SDK** of ResilientDB ⌕ - a distributed blockchain database

Google Summer of Code, DeepMind

STUDENT SOFTWARE DEVELOPER

- Added new features along with unit tests to **Kapitan** ⌕ and resolve pending issues.
- **Enabled inventory re-usability** by programming a federated remote inventory system.
- **Expanded secret management** by integrating 2 secret backends for GCP Secret Manager and Azure KMS.

Centaur - Unmanned Ground Vehicle | Design Report ⌕

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

- Headed the Information Security division to make an autonomous 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.

Education

University of California, Davis   *Davis, CA*

MS IN COMPUTER SCIENCE   *Sept. 2021 - Jun. 2023*

- Courses: Software Engineering, Distributed Database Systems, Distributed File System, AI, Algorithms, Scalable Systems   GPA 3.9

Delhi Technological University   *Delhi, India*

B. TECH IN INFORMATION TECHNOLOGY   *Aug. 2016 - May 2020*