

MANAN MONGA

(857)-588-2272 ◊ mananmonga@gmail.com ◊ github.com/mananmonga ◊ mananmonga.github.io ◊ LinkedIn Manan-Monga

SKILLS

Java, Kafka, Flink, Typescript, NestJS, JUnit, Mockito, SQL, JavaScript, Git, Ray, Solidity, Linux, AWS

WORK EXPERIENCE

SecurityScorecard Austin, TX
Senior Software Engineer April 2025 - Present

- Architected and led real-time data streaming at SSC using Apache Flink, building multiple pipelines that ingest billions of daily security observations from Kafka with stateful enrichment
- Engineered sub-second analytics by sinking enriched data into ClickHouse, implementing complex stateful merge logic and side-output fan-outs for Kafka-to-Kafka enrichment paths
- Scaled a cross-platform Protobuf contract layer for 50+ definitions, ensuring schema governance via Buf and automated codegen (Java, TS, Scala, Python)
- Developed a NestJS gRPC microservice for observation querying and vendor risk scoring, featuring dynamic ClickHouse aggregations and remediation workflows

Securonix Addison, TX
Software Engineer Oct 2022 - Present

- Built and enhanced reliable and high-performance Security Information and Event Management (SIEM) cloud applications on AWS.
- Designed and implemented various analytics, including Beaconing, Rarity analysis, Behavior analytics, and Peer analytics using Spark Streaming, Kafka, HBase, and Redis.
- Optimized Redis usage for third-party data, lookup tables, and whitelists, resulting in a collaboration with the AWS ElastiCache Service Team to reduce cloud expenses by \$2.3 million per year through increased read replicas for standalone Redis.

Cloud Security Engineer Jun. 2021 - Sep 2022

- Fostered collaboration across Development teams to deliver efficient architecture solutions that align with client's business needs, enhancing the quality of the build and deployment process.
- Boosted team productivity by implementing standardized operating procedures and creating internal documentation, enabling effective troubleshooting of customer tickets.
- Acted as a representative of the cloud team in the Office of the CTO, contributing to the design and implementation of innovative features tailored to customers' unique requirements.

Boston University Hariri Institute For Computing Boston, MA
Graduate Research Assistant Apr. 2020 - May 2021

- Led student research team building cross-platform prototype application using React-Native for privacy-sensitive electronic contact tracing for COVID-19 for better public health and to bring students back to campus.
- Researched feasible sensor technologies for detecting exposures, implemented Bluetooth Low Energy chirps to detect for mobile applications to detect exposures within COVID transmission range.
- Investigated exposure notification frameworks with MA state to ensure that they bought a secure contact-tracing framework.

PROJECTS

Python SQL operator library with Provenance and Explain-ability

- Engineered an operator library in Python to work with data pipelines to perform ETL operations at scale, keep track of data provenance to increase understanding of origin of SQL query results.
- Deployed library in Ray and turned all classes into efficient, distributed actors, improved recommendation engine performance by 70% to allow queries at data at scale.
- Incorporated explain-ability features with LIME and SHAP and performance metrics for each operation in pipeline with metric dashboard Jaeger that helped identify potential bottlenecks.

EDUCATION

Boston University Boston, MA
MS in Computer Science with a Specialization in Cybersecurity Sep. 2019 - Jan. 2021

- Active contributor to Hariri Institute, a convergence accelerator that initiates data-driven research for a better society.
- Courses: Strong focus on cryptography and data systems.

PES University Bengaluru, IN
BE in Electronics and Communications Aug. 2015 - May. 2019

PUBLICATIONS
