

AKSHAY SADHU

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EDUCATION

Georgia Institute of Technology

Master of Science, Computer Science (MSCS)

Aug 2023 - May 2025

GPA: 3.66

BMS Institute of Technology

Bachelor of Engineering, Computer Science

Jul 2016 - Aug 2020

CGPA: 7.92

EXPERIENCE

Institute of Matter and Systems (Georgia Tech) | Software Engineer

Jan 2025 - Present

Tech Stack: Python, FastAPI, MQTT, InfluxDB, Redis, MySQL, JCI, SSE, SparkPlugB, Docker, Grafana/OnCall | [Link](#)

- Integrated a device data monitoring solution into existing systems, enabling **100+ users** to track experiment progress in real-time and quickly address issues, ensuring early identification and resolution of bottlenecks.
- Designed a data pipeline to ingest **200k+ events/day** of building and equipment data, enabling monitoring, alerting and controlling of devices for improved operational efficiency, and reduced damage to equipment by **15%**.
- Deployed Grafana to aggregate tool data into a unified dashboard, delivering real-time insights, increasing device utilization by **30%**
- Launched an API service to forward Grafana OnCall alerts to MS Teams, cutting incident **response time by 60%** for critical support

WebEngage | Software Engineer

Jun 2022 - Jul 2024

Tech Stack: Java, Spring Boot, Dropwizard, Kubernetes, Docker, GCP, AWS, SQS, RDS, Druid, Git, MongoDB, BigQuery, Kafka

- Developed and scaled an omni-channel marketing platform **engaging 2B users** via email, SMS, in-app, push notifications, RCS channels etc enabling clients to boost user retention and revenue through real-time and historical campaign analytics.
- Launched an in-app campaign prioritization and user journey tool, increasing client **revenue by 15%** and boosting conversion rates **by 20%** within three months of launch across key clients.
- Reduced AWS cloud costs by 25%** by splitting real-time vs. historical storage using Redis and Druid in a pipeline ingesting **1B user events/day**, and decommissioned Elasticsearch from core infra.
- Drove 10% client growth** in EMEA by releasing a scalable RCS messaging engine with dynamic templating and real-time tracking, delivering **30k messages/min** across enterprise-grade deployments.
- Automated email and SMS message generation through ChatGPT integration, reducing campaign setup time **by 60%** and attracting new clients, leading to a **20% increase** in monthly active users.
- Resolved client issues and reduced support tickets **by 70%** per sprint by optimizing analytics APIs and participating in on-call support.
- Revamped client-facing reports with metrics like click-through conversion and revenue uplift per campaign, **improving generation speed by 10%** and increasing client usage and downloads by **over 20%** within 2 weeks of launch.
- Collaborated with the team lead to introduce standardized PR templates and review protocols, boosting code quality and **reducing feedback loops by 1 hour per PR**.

Societe Generale Global | Software Engineer

Dec 2020 - Jun 2022

Tech Stack: Java, JPA, LoanIQ, SpringBoot, XL Deploy, Jenkins, Junit, Mockito, TDD, BDD, SpringBatch

- Engineered a high-performance RFR interest calculation system, **delivering 60% faster processing** over legacy LoanIQ methods and enabling daily accruals on outstanding loans with precision and compliance
- Designed a REST API wrapper over LoanIQ SOAP APIs, streamlining data access and efficiently handling **200k+ requests/day**.
- Spearheaded the integration of global LoanIQ data into a centralized accounting ETL pipeline, driving a seamless transition from legacy systems and **achieving a 5% reduction** in operational cost overhead.

PROJECTS

Case For Learned Index | [Link](#)

Sept 2024 - Dec 2024

- Delivered a machine learning-enhanced indexing system for geospatial data retrieval, integrating custom B-trees and neural networks; exceeded initial projection of **70% query response time**, showing **80% speed increase**.

Diabetic Retinopathy Detection using Deep Learning | [Link](#)

Jan 2020 - Mar 2020

- Trained and fine-tuned a CNN model on a diabetic retinopathy dataset to detect and classify the level of DR in affected patients
- Implemented histogrammic normalization and Haar Cascade to detect the presence of DR achieving testing **accuracy of 92%**.

Facial Recognition Attendance Management | [Link](#)

Jan 2018 - Mar 2018

- Innovated a real-time facial recognition-based attendance system leveraging Python's Haar Cascade technology; this enhanced accuracy ensured consistent enrollment verification while reducing manual entry errors by **over 60%**.
- Integrated MySQL database to store facial data and attendance records, enabling automated and efficient attendance tracking.

TECHNICAL SKILLS

Programming: Java, Python, SQL, ShellScripts, HTML

Frameworks: Spring Boot, JUnit, Mockito, BDD, TDD, DropWizard, PyTorch, React.js, FastAPI, SparkPlugB, Agile, SCRUM, Kafka, SQS

Databases: MySQL, SQLite, NoSQL, Apache Druid, Google BigQuery

Software & Tools: Git, IntelliJ IDEA, CI/CD, Devops, Docker, AWS S3, SQS, Lambda, IAM, Azure, GCP, Redis, Jenkins, Visual Studio, Jupyter, Linux, Unix, Grafana, Datadog, Elasticsearch, MQTT, InfluxDB, FastAPI, Alembic, Liquibase, Metasys Streams.