

# AADITYA MAHADEVAN

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## EDUCATION

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### STONY BROOK UNIVERSITY

Masters of Science in Computer Science  
GPA: 3.8/4.0

Stony Brook, NY  
Aug 2022 - May 2024

### KJ SOMAIYA COLLEGE OF ENGINEERING

Bachelor of Technology in Computer Engineering  
GPA: 9.2/10.0

Mumbai, India  
Jul 2018 - May 2022

## WORK EXPERIENCE

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### LYRIC

Software Engineering Intern

Sunnyvale, CA  
Jun 2023 – Aug 2023

- Built and deployed a custom **MLflow plugin** to manage model versioning, experiment tracking, and artifact logging across generative AI workflows.
- Integrated plugin into Lyric Studio's orchestration tools, improving reproducibility and reducing model deployment time by **35%**.
- Designed and validated MLflow REST API endpoints using **Postman** and **Python test suites** for seamless backend integration.
- Set up a **Docker-based local environment** mirroring production infrastructure to streamline plugin development and testing.
- Created a schema conversion utility bridging **Pandas 2.0** and **Clickhouse**, optimizing ingestion of prompt-response data.
- Improved SQL query performance by **60%** for analytics pipelines supporting content generation metrics.

### KJ SOMAIYA COLLEGE OF ENGINEERING

Data Analyst Intern Lead

Mumbai, India  
Dec 2019 - May 2020

- Led a team of 6 to build a geospatial routing pipeline using **PostGIS** and **QGIS**, enhancing commute planning for 100+ rural villages; in collaboration with IIT Mumbai.
- Built a **Java backend** to automate geospatial data ingestion and transformation.
- Managed Agile sprints and client reviews, improving delivery efficiency by **28%**; recognized by local authorities for impact.

## UNIVERSITY PROJECTS

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### EyeCanDo Project

- Contributed to cross-platform development using **SwiftUI**, **Unity3D**, and **C#** for iOS and VR-based gaze control systems.
- Engineered **eye calibration** routines using Apple's TrueDepth camera, improving input accuracy by **26%**.
- Built **dwell typing** and alternate gaze-based inputs for full communication support (keyboard, speech).
- Designed VR interactions for users with limited mobility; collaborated with clinicians at the **Stony Brook ALS Clinic**.
- Project received a **\$200K ALS Association grant**; featured by **AAU**, **SBU News**, and **ALS News Today**.

### Text Summarizer for Online Meetings

- Developed a **Django web** app combining extractive summarization (Word2Vec + TF-IDF centroid scoring) and abstractive models (**BART**, **T5**).
- Fine-tuned models on **CNN/DailyMail** and **BBC News** datasets using PyTorch; deployed via **Heroku**.
- Integrated **AssemblyAI** for speech-to-text conversion; optimized for long-form lecture inputs with configurable summary controls.
- Delivered great performance: **ROUGE-1 (51.9)**, **ROUGE-2 (30.2)**, **BLEU-4 (18.7)**; presented at **IEEE ICCCNT 2023**.

### Media Streaming Application

- Built a **Flutter-based** app with Firebase Firestore and Cloud Storage for real-time media streaming.
- Implemented **offline-first caching** with dynamic chunking, reducing buffering by **40%** on 3G networks.
- Integrated APIs (OMDb, TMDb) and built a recommendation engine based on viewing history and clustering.
- Deployed analytics and crash tracking using **Firebase Performance Monitoring**; beta-tested with 50+ users..

## ADDITIONAL SKILLS

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**Languages:** Python, Java, C, C++, JavaScript, Swift, Dart

**Frameworks/Tools:** Docker, Kubernetes, Firebase, Django, Unity, Git, MLflow

**Databases:** Clickhouse, PostGIS, MySQL, db2

**Other:** Polars, Heroku, PyTorch, AssemblyAI

**Certifications & Training:** [AWS Certified Developer – Associate](#), [Grokking Modern System Design Interview for Engineers & Manager](#), [Generative AI Engineering and Fine-Tuning Transformers](#)