

# Mythili Aitha

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## Professional Summary:

Full-stack software engineer with 2+ years of experience building scalable, responsive web applications and full-stack platforms using ReactJS, Python (Flask), Java (Spring Boot), and AWS. Proven ability to design and deploy robust REST APIs, optimize frontend performance, and collaborate in Agile teams. Passionate about building data-driven tools that deliver real-world impact. Strong foundation in data pipelines, testing frameworks, and software architecture.

## Education:

**Master of Science | Computer Science**

University of Houston

Graduated: May 2024

**Bachelor of Technology | Computer Science and Engineering**

Sreenidhi Institute of Science & Technology

Graduated: April 2022

## Technical Skills:

**Languages:** JavaScript (ReactJS, Node.js), Python (Flask), Java (Spring Boot), HTML5, CSS3

**Frontend:** ReactJS, TypeScript, Chart.js, D3.js, Tailwind (familiar)

**Backend:** Flask, Spring Boot, Node.js (familiar), RESTful APIs, DTOs

**Testing:** Cypress, Selenium (basic), Postman, API contract testing, Unit Testing (PyTest, JUnit - familiar)

**Databases:** MySQL, PostgreSQL, MongoDB

**Cloud/DevOps:** AWS (Lambda, RDS, S3, API Gateway, Amplify), GCP, Docker, Git, GitHub Actions, CI/CD pipelines.

**Monitoring & Optimization:** React DevTools, Chrome Lighthouse, AWS CloudWatch (familiar)

**Tools & Methodologies:** Agile, Scrum, Jira, Confluence, JSON, YAML, Figma (collaboration)

**Certifications** – AWS Cloud Practitioner

## Professional Experience

**Web Developer, University of Houston, TX**

**December 2023 – May 2024**

- Updated and extended university web properties using ReactJS, JavaScript, HTML/CSS, raising page views by 40% and engagement by 25%.
- Designed and developed full-stack features with ReactJS and REST APIs, iterating based on stakeholder feedback and usability insights. Improved content workflows in Cascade CMS. Produced usage/operations dashboards with D3.js/Chart.js, enabling stakeholders to track trends at a glance.
- Monitored frontend performance using dev tools, optimized asset delivery, and reduced load times by 30%. Collaborated via Jira/Confluence for specs, meeting notes, and release updates; supported cross-team reviews.
- Authored clear technical docs for components, data contracts, and deployment steps.

**Software Developer, Agile Solutions, India**

**May 2021 – July 2022**

- Prototyped and deployed an NLP-driven expert system with Flask and XGBoost, improving recommendation accuracy by 30%. Implemented REST endpoints for model inference and admin utilities; added input validation and logging.
- Created a JavaScript XSJS parser to AST, deployed on GCP, improving parsing throughput by 25%. Designed and maintained asynchronous data pipelines to GCP storage, improving throughput and ensuring traceability.
- Tuned MySQL structures/queries for faster reads; added indices and streamlined ETL loads. Wrote technical specs, test plans, and runbooks; collaborated with stakeholders for incremental releases.

## Projects:

**Full-Stack eCommerce Web Application**

- Engineered a full-stack eCommerce platform** using **React (frontend)** and **Java-Spring Boot (backend)** with user authentication, product catalog, cart, checkout, and order management functionalities.
- Designed scalable REST APIs** with DTO-layered architecture and **MySQL integration** to manage users, products, payments, addresses, and inventory.
- Developed a responsive Admin Dashboard** with MUI to manage products, discounts, customers, and orders, including analytics features like revenue charts, low stock alerts, and dynamic filtering.

**Severity Evaluation For COVID-19 Admissions (SECOVID-A):**

- Developed a **multi-modal AI network** for predicting ICU admissions using clinical data and X-Ray images to assess the severity of COVID-19 cases. Designed and implemented a Siamese multi-modal network that achieved a sensitivity of 0.95 and specificity of 0.9 in predicting ICU admissions.

**Serverless Hosting of Travel Away Web Application**

- Owned **end-to-end** delivery of a travel booking platform using **AWS Lambda**, **RDS**, and **React**, from prototyping to production deployment. Designed **scalable REST APIs** and integrated frontend/backend systems, applying feedback loops from test users to refine **UI/UX**.