

ADITI BAILUR

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EDUCATION

Northeastern University, Boston, MA

Expected Dec 2026

Master of Software Engineering Systems

GPA: 3.85

Coursework: Program Structures & Algorithms, Object-Oriented Programming, Web Design and User Experience Engineering, User Experience Design and Testing

Shah and Anchor Kutchhi Engineering College, Mumbai/ Mumbai University, India

May 2023

Bachelor of Technology in Computer Science with Honors

GPA: 3.7

PROFESSIONAL EXPERIENCE

Aiera, Boston, MA | Software Engineering Co-op

May 2025 - Present

- Led the design and implementation of a serverless document pipeline for SEC filings using AWS Lambda, S3, Python, and LangChain, improving data throughput and scalability
- Developed layout-aware and semantic chunking with canonicalization to enhance embedding precision by 25%
- Optimized cloud efficiency and latency through Lambda tuning, OpenSearch indexing, and S3 lifecycle management, lowering compute costs by 20%
- Authored runbooks and CI/CD workflows to standardize deployments and reduce incident recovery time
- Improved developer productivity by introducing Poetry packaging, Docker pipelines, and pre-commit hooks, cutting onboarding time and improving reliability

Stellar Organization, Mumbai, India | Software Developer

June 2023 - December 2023

- Built an interactive financial dashboard with Power BI, AWS S3, and PostgreSQL, improving data accessibility and decision-making efficiency by 10%
- Automated ETL data flows with Python, cutting manual effort by 30%, and introduced AI-driven financial forecasts for accurate predictions
- Designed a real-time event streaming system using Apache Kafka and Zookeeper, reducing data errors by 50%
- Integrated AWS Lambda and API Gateway to manage third-party financial APIs with secure, fault-tolerant delivery

Oasis Infobyte, Mumbai, India | Software Developer

April 2023 - May 2023

- Developed a responsive CRM platform using the MERN stack, integrating interactive data visualizations with D3.js and Three.js
- Implemented AWS S3-based encrypted document storage and Stripe API for secure payment processing
- Enhanced cross-platform responsiveness and accessibility across desktop and tablet devices

ACADEMIC PROJECTS AND PAPERS

Accessibility-First Travel Booking Dashboard (UI/UX Case Study)

January 2025 - April 2025

- Designed and prototyped an accessible travel booking dashboard in Figma, following WCAG 2.1 and Nielsen's heuristics
- Conducted usability testing with 8 participants, improving task completion rate by 35% and refining navigation based on user feedback
- Collaborated with developers to ensure design fidelity, responsive layouts, and user-centered interactions across devices

PawConnect – A Real-Time Pet Adoption Platform

September 2024 - December 2024

- Developed a multilingual Progressive Web App (PWA) using React, Redux, and TypeScript with accessibility and responsive design
- Built real-time adoption tracking with WebSockets and Node.js, providing instant updates on pet status for a seamless user experience
- Designed RESTful APIs with Express.js and PostgreSQL, improving response times by 30%
- Optimized app performance using AWS S3, Webpack, and Babel, reducing server load by 50%

TECHNICAL SKILLS

- Programming Languages: Python, Java, JavaScript (ES6+), TypeScript, SQL, C++, R
- Back-End & APIs: Node.js, Express.js, RESTful APIs, GraphQL, Flask, FastAPI
- Databases & Cloud: MySQL, PostgreSQL, AWS (Lambda, S3, API Gateway)
- DevOps & Testing: Docker, Kubernetes, GitHub Actions, Jest, Postman
- Web Development & Tools: React, Redux, Next.js, Webpack, Babel, D3.js, Figma

KEY STRENGTHS & INTERESTS

- Full-Stack Development: Building scalable, data-driven, and accessible web and mobile applications
- Cloud & DevOps: Experienced in serverless computing, containerization, and CI/CD on AWS and GCP
- UI/UX Design: Creating intuitive and user-centered digital experiences through research-driven design principles
- AI & Health Tech: Passionate about bridging technology with human impact through research-driven applications