

Gareshma Nagalapatti

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[LinkedIn](#) • [Portfolio](#) • [GitHub](#)

EDUCATION

Master of Science in Computer Science and Engineering

Santa Clara University, California

Coursework: Advanced Operating Systems, Machine Learning, Data Structure and Algorithms

(Expected) Jun 2026

CGPA: 3.9/4

Bachelor of Technology in Information Technology

Anna University, Chennai, India

Coursework: Computer Architecture, Object Oriented Analysis and Design, Database Management

Apr 2018

CGPA: 7.85/10

TECHNICAL SKILLS

Programming Languages: Java, Python, SQL, JavaScript, C/C++, PeopleCode, PHP, .NET

Frameworks & Technologies: Spring Boot, Spring Data JPA/Hibernate, RESTful APIs, Microservices, Flask, Django, Angular

AI Tools & Frameworks: Cursor, Cline, Claude (Code), OpenAI MCP, Agentic AI, GitHub Copilot, LangChain

Tools & Platforms: Git, Visual Studio, VS Code, Oracle SQL Developer, Postman, DBeaver, ServiceNow, Swagger

Mobile Development: Flutter (Dart), Firebase

WORK EXPERIENCE

Frugal Innovation Hub - Software Development Engineer Intern

Apr 2025 - Present

- Built an interactive math quiz website prototype for a local school, enabling real-time language switching between English and Spanish, which improved engagement among Spanish-speaking students by 20% during classroom trials.
- Revamped and modularized the legacy codebase into a clean, reusable architecture with dependency injection and reusable components, reducing technical debt and making future feature development significantly easier.
- Implemented a CI/CD pipeline with automated testing (GitHub Actions), accelerating release cycles by 70% (from several hours to less than an hour) and reducing production rollbacks by 15% through agile and Test-Driven Development practices.

Mphasis - Software Engineer

May 2023 - Aug 2024

- Engineered a real-time integration between HR databases and Cornerstone Restful APIs for 140k employees, reducing data sync time from 2 hours (batch jobs) to under 5 minutes and enabling faster onboarding and payroll updates.
- Automated error handling and recovery workflows using Java and Spring Boot, cutting manual interventions by 90% and reducing failed sync retries from several hours to minutes, improving reliability for critical HR operations.
- Led the end-to-end redesign of the data pipeline with modular microservices and RESTful API design, streamlining processes that previously required multi-step manual reruns and ensuring seamless updates across large-scale employee systems.

MultiTech EDA Systems - Software Engineer

Feb 2023 - Apr 2023

- Raised payroll accuracy to 92% by hardening PeopleSoft to Oracle Cloud sync (idempotent retries, record-level validation, reconciliation), reducing manual corrections.
- Preserved API performance during rapid feature growth by designing modular microservices and a normalized data model for Compensation preventing bottlenecks.

Aspire Systems - Software Engineer

Jun 2018 - Oct 2019

- Prototyped an internal email client web app (similar to Outlook/Gmail) using .NET and Angular, integrating with Office 365 APIs to send/receive emails and schedule meetings in calendar, improving team communication and coordination.
- Developed a facial recognition prototype leveraging OpenCV and custom preprocessing, achieving 98% face-match accuracy in controlled tests to authorize employee entry/exit and track in-office presence.

RESEARCH EXPERIENCE

Interactive Audio Indexing and Navigation Tool - [GitHub](#)

Aug 2017 - Jun 2018

- Enabled fast retrieval of lecture content by making transcripts searchable with time stamps, reducing manual scrubbing time for learners, and building an ASR (Automatic Speech Recognition) – driven indexing system.
- Developed a modular Python pipeline for audio preprocessing, transcription, and keyword extraction, improving video discoverability and navigation efficiency by 40% and reducing end-to-end processing time by 35%.

PROJECTS

URL Shortener and Organizer - [GitHub](#) | [Demo](#)

Aug 2025

- Enabled fast, reliable link sharing by building a Flask URL shortener with custom aliases and tags, improving retrieval and organizations for end users.
- Reduced operational overhead by containerizing the app and deploying to Azure App Service with GitHub CI/CD (build/test/deploy), ensuring consistent, automated releases.

Fake Job Posting Detection System - [GitHub](#) | [Demo](#)

May 2025

- Developed a scalable Machine Learning system to classify job postings as real or fake, mitigating risks like identity theft and fraud on job platforms.
- Achieved 97.5% accuracy and 0.845 F1-score using XGBoost, with GloVe embeddings for semantic analysis of job descriptions.
- Applied One-Class SVM for anomaly detection and contributed to improving platform safety by flagging suspicious listings.

PUBLICATIONS

- Gareshma N, Dr. P. Vasuki, Preethi S. [Interactive Audio Indexing and Speech Recognition](#) - based Navigation Assist Tool for Tutoring Videos, ICSCDS, April 2022.