ABHIRAM GADDAM

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EDUCATION

Georgia State University — **Atlanta, GA**
Masters in computer science, ***GPA: 4.0*** — *Graduation Date: December 2025*
- Awards: Presidential Scholar Awardee

Amrita Vishwa Vidyapeetham — **Kerala, India**
Bachelor of Technology in Computer Science, ***GPA: 3.71*** — *Graduation Date: July 2024*
- Awards: Excellence in Innovation Award & Best Research Paper Award

SKILLS

Languages : Java, C++, Python, JavaScript, TypeScript, SQL, HTML, CSS

Frameworks & Libraries : Spring Boot/MVC, Hibernate/JPA, React.js, Next.js, Angular, Django, Redux, RESTful APIs

Databases : MySQL, PostgreSQL, MongoDB, Redis

Cloud : AWS (EC2, RDS, S3), Docker

Tools : Git, GitHub, IntelliJ, Eclipse, Jenkins, JUnit, Mockito, API Testing

Certifications : AWS Cloud Practitioner, AWS Solutions Architect – Associate

Software Development : OOP, Data Structures & Algorithms, Agile/Scrum, Test-Driven Development (TDD), CI/CD

WORK EXPERIENCE

Georgia State University — **Atlanta, GA**
Graduate Teaching Assistant — *August 2024 – Present*
- Delivered **15+ lectures** and **10+ lab sessions** on recursion, OOP concepts, dynamic programming and greedy algorithms, enhancing student understanding of core algorithm design.
- Designed and integrated real-world coding exercises that increased lab participation by **20%** and improved student feedback scores.

Amrita Vishwa Vidyapeetham — **Kerala, India**
Research Assistant — *January 2024 - July 2024*
- Engineered a custom CNN with cosine similarity–based embeddings, achieving **97.3% accuracy** in Telugu handwritten character recognition, outperforming pre-trained baselines.
- Architected an end-to-end digitization pipeline by integrating **YOLOv8n** with **CNN** models, improving training efficiency by **25%** through Optuna-based hyperparameter tuning.
- Published peer-reviewed findings in ICAN 2024 and Springer Nature Computer Science Journal, validating contributions to AI research on document digitization. View Publication

Java Developer — *August 2022 – December 2023*
- Built and refined backend services with **Java (Spring Boot/MVC)** and **Hibernate/JPA**, applying **OOP principles** and multithreaded design to ensure high availability during peak course registration.
- Redesigned **MySQL** schemas and queries with indexing and join refactoring, boosting query performance by **15%** under concurrent access.
- Developed **asynchronous RESTful APIs** that increased throughput by **20%** and mitigated traffic bottlenecks in event-driven applications.
- Created reusable **Angular** components and optimized rendering and state management to maintain responsiveness during peak usage, cutting course registration time by **30%** for **5,000+ users**.
- Tuned Apache Tomcat thread pools and JVM settings and launched containerized builds with Docker via **Jenkins CI/CD pipelines**, validated with JMeter in an **Agile development cycle** to ensure reliable runtime performance.

ACADEMIC PROJECTS

Trade-in: Smart Cryptocurrency Assistant
- Designed a full-stack crypto platform with **React.js + Redux** frontend and **Spring Boot microservices**, integrating CoinGecko API, Stripe payments, and WebSockets for live market data.
- Implemented **JWT**-based authentication, **AES** encryption, and **PostgreSQL** query optimization with **Redis caching**, ensuring secure and scalable transactions.
- Developed and tested containerized builds using **Docker + Jenkins CI/CD**, ensuring reproducible deployments and production-ready configurations.

Student Social Responsibility Application
- Built a **Next.js + Django** full-stack platform showcasing **140+** student-led initiatives, secured with JWT-protected **REST APIs** and scalable **SQL** design.
- Boosted performance via SSR, caching, lazy loading, and **async APIs**, enhancing responsiveness during peak user activity.
- Containerized and rolled-out services with Docker + CI/CD pipelines, collaborating in an **Agile team environment** to deliver features iteratively, earning Best Innovative Project of the Year recognition.