

Venu Dattathreya Vemuru

LinkedIn GitHub

Email: venudattathreya@gmail.com

Mobile: +1-(706)-380-2548

EDUCATION

- **University of Georgia** Athens, GA
Master of Science in Computer Science; GPA: 3.7 *Aug 2024 - Dec 2026(Expected)*
 - Relevant Coursework: Advanced Algorithm Optimization, Software Engineering, Database, Machine Learning
- **RMK Engineering College** Chennai, India
Bachelor of Science in Computer Science; GPA: 3.74 *Aug 2020 - May 2024*

EXPERIENCE

- **Full Stack Developer (Graduate Student Assistant)** May 2025 - Present
University of Georgia - SER-CAT Lab *Athens, GA*
 - Developing full-stack web application using Drupal 10 CMS, PHP, JavaScript, MySQL on Acquia Cloud Platform, migrating 10,000+ scientific records with Superfish jQuery navigation system
 - Collaborating with laboratory directors and faculty using Agile methodology to gather requirements, create user stories, and deliver prototypes through Dev/Test/Live workflow with Git version control
 - Building responsive design serving 19+ member institutions and 500+ researchers with improved navigation and accessibility using Acquia hosting infrastructure
- **Machine Learning Researcher** Jan 2025 - May 2025
University of Georgia - Soybean Breeding and Genetics Laboratory *Athens, GA*
 - Architected ML pipeline using Python, PyTorch, and scikit-learn, implementing two-stage pipeline architecture that processed 1,512 genomic samples across 10-year dataset (2015-2024) achieving 84% performance improvement
 - Implemented dimensionality reduction techniques (like PCA and autoencoders) to transform 10,000+ features into optimal subsets
 - Collaborated with postdoctoral researchers and faculty to build cross-platform ML system integrating Python and R, implementing GPU-accelerated workflows that reduced analysis time by 60%
- **Cybersecurity Intern** Feb 2023 - May 2023
Corizo *Remote*
 - Identified and resolved 50+ software vulnerabilities using BurpSuite, Nmap and manual code review
 - Developed Python automation scripts for security patch deployment, reducing manual effort by 40%

PROJECTS

- **Sky Hop** - *React, Java, Spring Boot, MySQL, JWT* [GitHub] Mar 2025
 - Built full-stack airline booking system using Java, Spring Boot, and React, implementing JWT authentication and preventing 7 SQL injection attack types
 - Designed normalized MySQL database with 6 tables and 7 foreign keys using 3NF methodology, eliminating data redundancy across flight booking operations
 - Collaborated with 5-member team to develop RESTful APIs and secure payment processing, achieving 99% uptime during system demonstrations
- **Cinema Booking System** - *Next.js, React, Node.js, MongoDB, Tailwind CSS* [GitHub] Feb 2025
 - Built scalable cinema booking platform using Next.js and Node.js, reducing checkout abandonment by 35% through multi-threaded transaction processing
 - Developed 9+ Mongoose data models with atomic reservation logic, eliminating 90% of seat overbooking conflicts and supporting dynamic pricing
 - Optimized performance with SSR/SSG strategies achieving 25% faster page loads and 40% code reduction through centralized API architecture
- **Student Identification Management** - *Python, Flask, OpenCV* [GitHub] Jan 2025
 - Built and deployed facial recognition attendance system using Python, Flask, and OpenCV achieving 95% accuracy for professor's classes serving 180+ students
 - Developed RESTful API microservices with real-time video processing and SQLite optimization, reducing query loads by 90% with zero camera lock failures

TECHNICAL SKILLS

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

Packages and Tools: Spring Boot, React, Next.js, Node.js, Express, Flask, Git, Docker, Kubernetes, REST APIs, CI/CD, MySQL, PostgreSQL, MongoDB