Kalyan Raja Kadari

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Education

Master of Science in Computer Science — *Florida State University (Tallahassee, FL)* — GPA: 3.7/4.0 **August 2023 – August 2025**
- Coursework: Distributed Systems, Advanced Computer Architecture, Parallel Computing, Machine Learning
- Research: Multi-layer Graph Analytics, Distributed Computing Optimization, Deep Learning Systems

Bachelor of Technology in Computer Science — *JNTU (Hyderabad, India)* — GPA: 7.6/10.0 **July 2018 – July 2022**
- Coursework: Data Structures, Algorithms, Operating Systems, Database Management Systems

Technical Skills

Languages: Java, C++, Python, C, Kotlin, Scala, JavaScript, Flutter
Systems & HPC: OpenMP, MPI, CUDA, Parallel Computing, gRPC, Slurm, Performance Optimization
Web & Cloud: React.js, Angular, Spring MVC, Node.js, AWS (Lambda, EC2, S3), Docker, Kubernetes
Databases & Tools: MySQL, PostgreSQL, MongoDB, Redis, Git, Jenkins, RESTful APIs, Microservices

Experience

AI/ML Application Engineer — *Self-Employed (Remote) (Tallahassee, FL)* **April 2024 – Present**
- Architected and deployed end-to-end AI solution for skin analysis using TensorFlow Lite and AWS SageMaker, incorporating real-time computer vision models processing 30 FPS with 92% accuracy
- Developed ensemble-based recommendation engine achieving 95% classification accuracy, 60% reduced model size, and 87% user satisfaction with sub-100ms inference time

Research Assistant — *CS FSU (Tallahassee, FL)* **March 2024 – Present**
- Developed ML pipelines for CancerKG.org, integrating medical datasets with LLM-based treatment recommendation systems
- Optimized hybrid LLM-knowledge graph architecture, achieving 40% improvement in treatment pathway accuracy
- Built Python/SQL data infrastructure enabling real-time validation of AI-generated medical insights

Software Developer — *OpenText Technologies (Hyderabad, India)* **November 2021 – July 2023**
- Architected cloud-native content management system using AWS/GCP services, achieving 75% reduction in server load
- Led development of microservices-based synchronization system with 85% improvement in data transfer efficiency
- Implemented CI/CD pipeline using Jenkins and Docker, reducing deployment time by 60%
- Mentored team of 4 developers, achieving 65% reduction in bug detection time and 40% increase in code coverage

Software Developer Intern — *OpenText Technologies (Hyderabad, India)* **August 2021 – November 2021**
- Developed React-based media management pipeline with TypeScript and Redux, reducing task completion time by 50%
- Created reusable component library and implemented state management patterns, decreasing development time by 40%

Digital Project Trainee — *Bitwise Solutions (Pune, India)* **January 2021 – July 2021**
- Designed user-centric interfaces, contributing to a 15% increase in brand perception
- Developed website strategies resulting in a 25% increase in online conversions and engagement

Software Engineer Trainee - PEP — *EPAM Systems (Remote)* **September 2020 – June 2021**
- Participated in intensive training program focusing on full-stack development and software engineering practices
- Developed and deployed multiple web applications using React, Node.js, and MongoDB
- Collaborated with team members using Agile methodologies and version control systems

Projects

gCore - Multi-layer Graph Analysis — *Graph Algorithms, C++* **2024**
- Implemented vertex peeling and GCD+ algorithms, optimizing graph redundancy by 66% for core decomposition
- Developed efficient core search and dense subgraph discovery techniques for multi-layered graphs

Advanced Cache Architecture Simulator — *C++, Computer Architecture* **2023**
- Engineered multi-level cache simulator with L1 (32KB) and L2 (256KB) caches and configurable associativity
- Developed prefetching algorithms reducing miss rates by 35% with O(1) time complexity replacement policies

Distributed MapReduce Framework — *C++, gRPC, Protocol Buffers* **2022**
- Built fault-tolerant system processing 100GB+ datasets across 10-node cluster using custom gRPC protocol
- Implemented work stealing algorithm reducing task completion time by 45%
- Created robust fault tolerance with automatic task reassignment and checkpoint-restart capabilities

Healthcare AI Projects — *Python, ML* **2020**
- Developed CV disease prediction model with 20% performance gain using SVM and AdaBoost
- Built Heartify AI application achieving 98% accuracy, ranking top 5 nationally among 66 projects
- Conducted comparative analysis of deep learning optimizers (ADAM, Yogi, RMS Prop) on MNIST datasets

Achievements

Research: First author - *"Optimizing Multi-layer Graph Processing"* (IEEE ICDCS 2024), Co-author - *"Efficient Cache Architectures"* (ISCA 2024)
GSoC 2023: Developed distributed consensus system (10k TPS, 99.9% availability), Patent pending for VM resource allocation
Certifications: AWS Solutions Architect (980/1000), Google Cloud Architect, Azure Solutions Architect Expert
Awards: FSU Systems Competition Winner 2024, Flipkart GRiD 3.0 Finalist (Top 1%), IEEE SOPHOS 2nd Place