

JAYANTHKUMAR KARTHIK

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EXPERIENCE

Software Engineer | Cognizant Technology Solutions, Bengaluru, India

Sept 2021 – Dec 2023

- Streamlined healthcare platform scalability and performance by developing and maintaining backend systems with Java, Spring Boot, Hibernate, and JPA, delivering 14+ RESTful APIs that served 50k+ monthly users with high reliability
- Secured patient health records by implementing JWT, OAuth 2.0, and Spring Security, reducing authentication vulnerabilities by 40% and ensuring HIPAA-compliant data protection across all endpoints
- Accelerated data transactions by optimizing SQL queries and deploying Redis caching, enabling 30% faster API responses and 25% quicker data retrieval through efficient JSON/XML data handling
- Increased deployment scalability by 3x and achieved 99.9% uptime by containerizing microservices with Docker, orchestrating via Kubernetes (EKS), and automating CI/CD pipelines on AWS (EC2, ELB, Lambda, CloudWatch, S3, SNS)
- Spearheaded creation of automated testing suites that maintain a code quality score of 85/100 and detect 95% of potential errors before deployment, improving code maintainability
- Drove sprint efficiency by collaborating within an Agile team of 14–18 developers, leveraging Jira for sprint tracking and Grafana for performance monitoring, which improved delivery timelines and issue resolution by 20%

Software Engineer Intern | Cognizant Technology Solutions, Bengaluru, India

May 2021 – July 2021

- Engineered Healthcare backend system ensuring high performance, data protection and reliability using Node.js
- Secured application using JWT and OAuth 2.0, cutting authentication vulnerabilities 40% and protecting user data
- Instituted a robust testing framework with Jest/Mocha, achieving 60%+ code coverage and reducing errors
- Integrated APIs with frontend systems, containerized services using Docker, deployed on AWS with 99.9% uptime
- Optimized performance through API level caching with 30% faster API responses, 25% quicker data access

PROJECTS

Job Portal AI | React, Redux, Spring Boot, SQL, Java, Hibernate, Gen AI

[GitHub](#)

- Built a job portal enabling 1K+ users to search, apply, and track jobs using React, Spring Boot and MySQL
- Enhanced user onboarding by 20% through secure login implementation using Spring Security, JWT, and OAuth 2.0
- Delivered 3x job-match accuracy through ML-based recommendation system by implementing cosine similarity

E-Commerce Website | Node.js, Express.js, React.js, Redux, MongoDB, Stripe, Render

[Website](#) | [GitHub](#)

- Architected a full stack E-commerce website supporting 100+ products and order tracking with Node.js & MongoDB
- Improved page load speed by 30% by optimizing component rendering & states using lazy loading and Redux
- Boosted 5x checkout speed and UX by integrating Stripe for INR payments and Cloudinary for image storage

Oppia Open-Source Contribution | Angular, TypeScript, Python, Docker, GitHub Actions, Flask

[GitHub](#)

- Refactored Angular form logic to save subject interests on focus change, improving state management
- Enhanced 4+ end-to-end UI tests in Angular, reducing 2 hours/week of manual testing and improving productivity
- Ensured 100% reliable saves across sessions by fixing data-sync bug in subject-interest module by passing CI check

EDUCATION

Northern Arizona University, United States

Jan 2024 – Dec 2025

Master of Science in Computer Science [GPA: 4.0/4.0]

Courses: Data Structures, Algorithms, Open-Source Software Dev, High Performance Computing, Cloud Computing, Block Chain

SKILLS

- Programming:** Java, Python, C, C++, JavaScript, HTML, CSS, Git, Bash, Linux, Object Oriented Programming
- Databases:** SQL, MongoDB, PostgreSQL, FIASS, Pine Cone, Redis
- Cloud & Web:** AWS, Docker, Kubernetes, CI/CD, Node.js, JWT, OAuth 2.0
- Generative AI:** LLM Finetuning, Hugging Face, RAG, Prompt Engineering, Scikit-learn, Machine Learning
- Frameworks:** NumPy, Pandas, Spring Boot, React, Redux, Express.js, Matplotlib, Seaborn, Django, Fast API

EXTRACURRICULAR AND LEADERSHIP

- Led a team of 4 in a hackathon and developed a volunteer website for team management
- Secured GRA position out of 180 students, received tuition waiver for 2025, saving a total of \$26K