Teja Kavikondala

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EDUCATION

Master of Science in Computer Science | University of Illinois at Chicago, IL. | GPA 3.9/4 **May 2025**

Coursework: *Algorithms, Database Systems, Computer Vision, UX Research, Computer System Security, ML on Graphs, NLP, Software Engineering.*

Bachelor of Technology Electronics and Communication Engineering | JNTU, India **2020**

TECHNICAL SKILLS

Programming languages: Python, Java, Go, JavaScript, SQL.

Frameworks & Technologies: React, TypeScript, Angular, Redux, Webpack, MUI, SCSS, jQuery, HTML, CSS, Spring MVC, Spring JPA/Hibernate, Spring Security, Spring Cloud Stream, JUnit, Log4j, Kafka, RabbitMQ, Node.js, Express.js, Django, Nginx, Gradle, Numpy, Pandas, Matplotlib, Keras, TensorFlow, SpaCy, Hugging Transformers, NLTK, OpenCV, PyTorch, Scikit-Learn, NetworkX, Apache Spark, LangChain.

Databases: MySQL, PostgreSQL, MongoDB, Redis.

CI/CD & Monitoring Tools: Git, Linux, Docker, Jenkins, Maven, Kubernetes, GitHub Actions, Prometheus, Grafana.

Cloud Infrastructure: AWS (EC2, ECR, RDS, S3, EKS, CloudWatch), GCP, Azure, Terraform.

PROFESSIONAL EXPERIENCE

Software Engineer | ***CITI, TX, United States.*** **Aug 2025 – Present**

- Created custom, accessible **Material-UI** components that manage complex state using **React Hooks**, enhancing user engagement by 25%.
- Enhanced monolithic RESTful services into modular **Spring MVC** components, improving system maintainability and scalability.
- Implemented a Redis caching layer using **Springboot**, reducing read latency by 70% for customer account lookups.
- Containerized applications with Docker and orchestrated workloads on **Amazon EKS**, achieving deployment time from 1 hour to 10 minutes.
- Collaborate with designers, product managers, and QA engineers to deliver high-quality, secure solutions.

Graduate Research Assistant | ***UIC, Chicago, United States*** **Nov 2023 – May 2025**

- Developed predictive models using **Python** (**scikit-learn, TensorFlow, PyTorch**) to analyze patient outcome data, improving **30%** prediction accuracy for clinical decision support.
- Implemented ML algorithms (**Random Forest, XGBoost, K-means clustering**) on clinical datasets containing **10,000+** patient records.
- Built deep learning models using **Keras** and **TensorFlow** for medical image analysis and diagnostic classification tasks.
- Built ETL pipelines using **Python (pandas, NumPy)**, **SQL**, and **Apache Spark** to clean and preprocess healthcare data for clinical analytics.
- Contributed to development of GenAI-powered clinical documentation tools using **OpenAI API** and **LangChain** to automate medical report generation from patient data.
- Created interactive dashboards and visualizations using **Tableau** and **Power BI** to communicate findings to clinical stakeholders.

Software Engineer Intern | ***Apoorva Corporation, Colorado, United States*** **May 2024 – Aug 2024**

- Increased **SaaS** application responsiveness by 25% by leveraging **React's Virtual DOM** and **Redux**-based state management system.
- Engineered high-performance **Django** RESTful APIs, to handle concurrent requests and reduced data processing time by 45%.
- Secured SaaS APIs with Single Sign-On (SSO) solution using **OAuth 2.0** within Django REST Framework.
- Leveraged GitHub Copilot to accelerate code refactoring, and debugging across full-stack applications.

Software Engineer | ***Demy Software Solutions, India.*** **Aug 2022 – Jul 2023**

- Incorporated lazy loading components using **React.js & JavaScript (ES6+)** reducing initial page load time from 4s to 1s.
- Developed a robust server-side payment gateway using **Node.js/Express.js**, securely process 2000+ credit card transactions monthly.
- Implemented a flexible **NoSQL** database schema in **MongoDB** to store diverse product and user information, improving data retrieval by 30%.
- Containerized and Deployed applications on **AWS EC2** using Docker and **S3** bucket to serve static React files achieving **99.9%** uptime.
- Actively participated in peer code reviews providing constructive feedback and suggestions improving overall code quality.

Software Engineer | ***Cognizant Technology Solutions, India*** **Nov 2020 – Aug 2022**

- Built scalable microservices using **Java 17, Spring Boot, Hibernate**, handling 500K+ transactions/day with sub-100ms response latency.
- Secured sensitive online banking endpoints by integrating **JWT authentication** and **Spring Security** with **RESTful APIs**.
- Implemented asynchronous event driven workflows using **Apache Kafka** & **Spring Cloud Stream**, reducing queue backlog by 40%.
- Deployed real-time API monitoring and alerting with **Prometheus, Grafana, and AWS CloudWatch** enabling proactive failure response.
- Integrated build validations and rollback strategies to **CI/CD** pipelines with **Jenkins and Maven**, reducing release cycle time by 50%.
- Provisioned scalable and reliable cloud infrastructure using **Terraform** for IaC deployments, reducing deployment time by 60%.
- Collaborated with cross-functional teams to enhance Agile execution and tracking using **JIRA**.

Software Engineer Intern | ***Cognizant Technology Solutions, India*** **Jan 2020 – May 2020**

- Developed SPAs using **Angular-RxJS & Observables**, **Typescript** and **WebPack** for real-time account and transaction updates**.**
- Devised automation scripts using **BDD (Cucumber)** and **TDD (Selenium, Java)** to validate banking workflows reaching 80% code coverage.
- Participated in the full **SDLC**, including requirements gathering, development, testing, and deployment support.
- Documented code functionality and workflows to improve maintainability and onboarding.

PROJECTS

SpringNova | **Spring Boot, Spring Cloud (Eureka, Gateway, Config Server, OpenFeign), Java 17, Gradle, OpenAPI/Swagger, WebClient**

A Distributed System that demonstrates service discovery, centralized configuration, and API routing. It includes multiple microservices for user and department management, interconnected through a service registry and API gateway, showcasing seamless inter-service communication and scalability.

Real-Time Notification System | **Reactjs, Nodejs, PostgreSQL, Redis, RabbitMQ, Docker, Azure.**

Deployed a highly scalable, real-time notification system using React.js, WebSockets, Redis, RabbitMQ pub-sub and Azure for efficient session delivery.

Hierarchical Attention for Dynamic Graph Learning | **Transformers, GNNs, PyTorch, NumPy, NetworkX, Scikit-learn**.

Advanced dynamic GNNs by integrating hierarchical attention and adaptive temporal smoothing into transformer-based architectures. Enabled scalable modeling of time-evolving networks, achieving state-of-the-art results on multiple benchmarks with up to 1.5% performance gains.

Controlled Data Augmentation | **LLaMA-7B, HuggingFaceTransformers, PyTorch, spaCy, Sentence-Transformers, GCP.**

Developed a CDA framework using LLaMA-7B to improve dataset richness and model generalization in low-resource NLP settings. Achieved a 17% accuracy boost and reduced perplexity and deployed the model on GCP platform.