Tharun Derangula

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PROFESSIONAL SUMMARY

- Full-stack engineer with **5+** years of experience in **SDLC**, including **System Design**, **Distributed Systems**, development, testing, and deployment of scalable enterprise applications.
- Extensive experience in **Front-end**, **Back-end**, and **Full Stack Development** using **React**, **Next.js**, and **Spring Boot**, building scalable enterprise applications.
- Skilled in **Test-Driven Development (TDD)** and **Agile** methodologies, including **SCRUM** and **Kanban**.
- Proficient in modern UI development using **React**, **Next.js** with **SSR**, **TypeScript**, **HTML5**, **CSS3**, and **Tailwind CSS**.
- Extensive experience in **JavaScript (ES6+)**, **TypeScript**, **Python**, and **Go** for frontend and backend.
- Expertise in state management using **Redux**, **Redux Toolkit**, and **Context API** in **React** applications.
- Experience with **React hooks**, **GraphQL**, and **Redux** for state management in applications.
- Solid understanding of **Next.js SSR**, **Core Web Vitals**, **SEO**, and performance optimization strategies.
- Proficient in modern CSS frameworks like **Tailwind CSS**, **Styled-components**, and **Material-UI**.
- Developed reusable **front-end component libraries** to ensure consistency and maintainability across applications.
- Hands-on experience in unit testing and integration testing using **Jest**, **React Testing Library**, **Cypress**, **Playwright**, and **Cucumber**.
- Proficient in backend development using **Java**, with strong knowledge of features like **Streams**, **Functional Interfaces**, and **Parallel Streams**.
- Expertise in **Core Java** concepts such as **Garbage Collection**, **Collections Framework**, **Multithreading**, **Exception Handling**, and **Generics**.
- Skilled in designing and developing back-end solutions using **Spring Boot**, **Node.js**, **Express.js**, **REST APIs**, **GraphQL**, and **gRPC**.
- Experienced in building **microservices** and **event-driven architecture**, developing **RESTful APIs** using **Spring Boot** and **Node.js** with **JWT** and **OAuth 2.0**.
- Hands-on experience in **Docker**, **Kubernetes**, **Helm**, and **Terraform** for containerization, orchestration, and scaling.
- Proficient in setting up and managing **CI/CD pipelines** using **GitHub Actions** and **Git** with **SonarQube** integration.
- Skilled in working with **AWS** services, including **EC2**, **S3**, **Lambda**, **CloudFront**, **CloudWatch**, and **DynamoDB**.
- Extensive experience with **PostgreSQL**, **MySQL** and **NoSQL** databases **MongoDB**, **DynamoDB**, **Redis**, **Snowflake**, and **Elasticsearch** including caching strategies.
- Developed and consumed **RESTful** and **GraphQL** web services with efficient enterprise application integration.
- Proficient in design patterns like **MVC**, **Singleton**, **Factory**, and **Domain-Driven Design** for scalable solutions.
- Experienced in using **Apache Kafka** for building real-time **event-driven** streaming services for transactions
- Expertise in maintaining code quality and reliability using **SonarQube** and **Datadog**, ensuring adherence to standards.
- Skilled in using modern tools such as **VS Code**, **IntelliJ IDEA**, **GitHub Copilot**, **Codex**, and **Claude Code**.
- Deployed and managed applications on **AWS ECS**, **Kubernetes**, and **Terraform** infrastructure.
- Debugged production issues using **Splunk**, **Datadog**, and **CloudWatch** logs to enhance application performance and reliability.
- Developed and managed monitoring dashboards using **Prometheus**, **Grafana**, and **Datadog** to track performance.
- Experienced in **Linux** shell scripting and deploying applications on cloud environments.
- Collaborated with **Release Management Teams** to manage builds and deployments across environments such as **DEV**, **QA**, **UAT**, and **Production**.
- Actively participated in **code reviews**, **system design**, and **incident management for production issues**.
- Mentored team members and interns on **design patterns**, **API design**, **code reviews**, and best practices.
- Demonstrated ability to rewrite legacy systems into modern **microservices-based** and **cloud-native architectures** using latest tech stacks.
- Experienced in **LLM**, **RAG**, **LangChain**, **OpenAI**, **Anthropic APIs**, and **Prompt Engineering** for **AI-powered** features.
- Strong communication, adaptability, and leadership, delivering **business-critical** features in **Agile** environments.
- Adopted advanced AI coding assistants including Cursor, Codex, and Claude to streamline development workflows and boost engineering productivity by accelerating repetitive tasks and reducing manual effort.

TECHNICAL SKILLS

- **Languages:** Java, TypeScript, Python, JavaScript, Go, SQL
- **Frontend:** React, Next.js, Redux, Tailwind CSS, HTML5, CSS3, GraphQL, Jest, React Testing Library
- **Backend:** Node.js, Express.js, Spring Boot, REST APIs, GraphQL, Microservices, Kafka, Redis, gRPC
- **Cloud & DevOps:** AWS, GCP, Azure Docker, Kubernetes, Terraform, GitHub Actions, Helm, Prometheus, Grafana
- **Databases:** PostgreSQL, MongoDB, Redis, Snowflake, Elasticsearch, DynamoDB
- **AI/ML:** LLM Integration, RAG, LangChain, OpenAI API, Anthropic API, Prompt Engineering, GitHub Copilot
- **Architecture & Practices:** System Design, Distributed Systems, Event-Driven Architecture, Microservices, Domain-Driven Design, API Design, TDD, Communication, Adaptability, Leadership.
- **Tools:** Git, GitHub, Jira, Postman, IntelliJ IDEA, VS Code, Codex, Claude code, SonarQube, Splunk, Datadog, Linux

EDUCATION

Masters in information technology

Kennesaw State University   GPA: 3.9/4.0

Bachelors in computer science and engineering

Lovely Professional University   GPA: 3.7/4.0

EXPERIENCE

Software Engineer |HubSpot, USA   January 2024 – Present
- Led architecture and development of HubSpot's Smart CRM pipeline experience using **React, TypeScript, and GraphQL**, redesigning board, calendar, and table workflows that improved sales productivity by **30%** and increased daily active usage.
- Built and optimized **RESTful and GraphQL APIs** supporting HubSpot's micro-frontend architecture used by **400+ frontend engineers**, implementing **Redis caching and connection pooling** to reduce peak response time from **320ms to 85ms**.
- Architected and developed **12 Java-based microservices** using **Spring Boot, Kafka, and PostgreSQL**, powering the Smart CRM contact management module handling **200M+ buyer and company profiles** and reducing data enrichment latency by **45%**.
- Designed an event-driven data ingestion pipeline using **Kafka, AWS Lambda, and Elasticsearch**, processing **2B+ CRM events daily** with **99.9% uptime** to enable real-time buyer intent scoring and CRM intelligence.
- Led migration of **8 legacy monolithic services** to cloud-native microservices on **AWS ECS and Kubernetes**, leveraging **Terraform and Docker**, reducing deployment time from **4 hours to 18 minutes** and lowering infrastructure costs by **35%**.
- Developed automated **CI/CD pipelines** using **GitHub Actions, Docker, and Kubernetes**, increasing deployment frequency by **3x** and reducing rollback incidents by **60%**.
- Integrated **LLM-powered AI agents** into the CRM workflow engine using **Java, Python, OpenAI APIs, and AWS SQS**, enabling autonomous resolution of **50% of tier-1 support workflows**.
- Mentored **6 junior engineers** through architecture reviews and pair programming, establishing **TDD best practices JUnit, React Testing Library** that improved test coverage from **52% to 89%** and reduced production defects by **40%**.
- **Tech Stack:** Java, Spring Boot, React, Next.js, TypeScript, PostgreSQL, Redis, Kafka, Docker, Kubernetes, AWS, Terraform, GitHub Actions, GraphQL, LLM Integration, RAG.

Software Engineer |Aveva, India   August 2021 – December 2022
- Developed enterprise **web applications** using **Java Spring Boot** and **Angular**, delivering real-time **data analytics** and visualization platforms serving **100K+ daily active users** across energy and manufacturing industries
- Built high-performance **RESTful APIs** using **Spring Boot** and **Hibernate ORM**, processing **10M+ records daily** from **SQL Server** databases with **99.8% uptime** and sub-200ms response times
- Designed and implemented **responsive dashboards** using **Angular**, **TypeScript**, and **RxJS**, reducing data loading time by **50%** through lazy loading and optimized **API** integration patterns
- Engineered **data integration microservices** using **Java** and **Spring Boot**, automating ETL workflows that processed **5TB+ monthly data volume** and reduced manual processing time by **65%**
- Implemented **CI/CD pipelines** using **Jenkins** and **Maven**, containerized applications with **Docker**, and deployed to **Azure Cloud**, reducing deployment time by **70%** and improving release frequency
- Optimized database performance through query tuning, indexing strategies, and **Redis** caching implementation, improving application throughput by **45%** and reducing infrastructure costs by **$80K annually**
- Collaborated in **Agile/Scrum** teams using **JIRA**, conducted code reviews, achieved **90%+ code coverage** with **JUnit** and **Jasmine** tests, and documented technical specifications for cross-team projects
- **Tech Stack:** Java, Spring Boot, Angular, TypeScript, RxJS, SQL Server, MongoDB, Redis, Docker, Azure, Jenkins, Maven, JUnit,

Software Engineer |Xebia, India   January 2020 – August 2021
- Developed and maintained **full-stack web applications** using **Java Spring Boot** and **React**, delivering features for banking and e-commerce clients that served **50K+ end users** with **99.5% uptime**
- Built **RESTful APIs** using **Spring Boot** and **Spring MVC**, integrated with **MySQL** and **PostgreSQL** databases, implementing CRUD operations and business logic for client-facing applications
- Designed and implemented **responsive UI components** using **React** and **JavaScript**, collaborating with UX designers to create intuitive user interfaces that improved user engagement by **30%**
- Developed authentication and authorization modules using **Spring Security** and **JWT**, implementing role-based access control for enterprise applications handling sensitive financial data
- Wrote comprehensive unit and integration tests using **JUnit** and **Mockito**, achieving **85%+ code coverage** and reducing production bugs by **40%** through rigorous testing practices
- Participated in **Agile/Scrum** development cycles, attending daily standups, sprint planning, and retrospectives, while using **JIRA** for task tracking and consistently delivering features within sprint timelines
- Collaborated with senior engineers on code reviews, implemented feedback to improve code quality, and contributed to team documentation for **REST API** design patterns and coding standards
- Assisted in **CI/CD pipeline** setup using **Jenkins** and **Docker**, automated build and deployment processes that reduced manual deployment efforts and improved team productivity
- **Tech Stack:** Java, Spring Boot, React, JavaScript, MySQL, PostgreSQL, Docker, AWS, Git, Jenkins, JUnit, Mockito, REST API, Agile

ACHIEVEMENTS
- Achieved AWS Cloud Practitioner certification, emphasizing my proficiency in managing cloud services and infrastructure.
- As a GRA, mentored 200+ students in coding, debugging, and algorithmic problem solving, increasing satisfaction by 30%.

CERTIFICATIONS
- Databricks Generative AI Fundamentals
- Meta Full-stack Developer Professional Certificate
- Microsoft Full-Stack Developer Professional Certificate