Pradeep Diguvidi

Email — diguvidi.pradeep@gmail.com | +1 (669)-321-6111 | **Website** | **GitHub** | **LinkedIn**

Education

San Jose State University San Jose, CA
Master of Science in Computer Engineering *Aug. 2023 – Dec. 2025*
Coursework: Web UI Design, Operating Systems, Computer Architecture, Data Mining, Software Quality Assurance, Algorithms and Data Structures, System Software, Software Security Techniques.

Experience

Tata Consultancy Services (TCS) Bengaluru, India
Software Engineer *Sep. 2021 – Jun. 2023*

- Developed a full-stack e-commerce platform using **React.js** and **Spring Boot**, driving a **30% increase** in online sales and generating **$2.5M+ additional revenue** through enhanced virtual shopping experience.
- Engineered high-performance backend using **Java**, **Spring MVC**, and **MySQL**, resulting in **30% faster** database operations and **$500K cost savings** through improved data management efficiency.
- Built test-driven development (TDD) with comprehensive **RESTful API** architecture, achieving **95% test coverage** and reducing production bugs by **90%**, saving **$200K annually** in maintenance costs.
- Led development of healthcare scheduling platform using **Java**, **Angular**, and **Spring Boot**, resulting in a **25% improvement** in appointment efficiency and **$1.2M revenue increase**.
- Created and deployed **Redis caching strategies**, reducing database load by **50%** and improving application response times by **35%**, resulting in **$300K infrastructure cost savings**.

Systems Engineer *Aug. 2019 – Sep. 2021*

- Architected secure healthcare application using **Spring Cloud Dataflow**, **Java**, and **MySQL**, implementing **HIPAA-compliant** encryption protocols, contributing to **$3.5M project revenue**.
- Optimized and restructured **SQL database schema**, improving query performance by **40%** while maintaining strict data security standards, reducing operational costs by **$400K annually**.
- Executed **database migration scripts** and **stored procedures** for **PostgreSQL** and **MySQL**, ensuring zero-downtime deployments and preventing **$1M+ potential revenue loss**.
- Developed **ETL pipelines** using **Apache Kafka** and **Spring Batch**, processing **1M+ records daily** with **99.9%** accuracy, enabling **$2M+ data-driven revenue opportunities**.
- Managed **NoSQL databases** including **MongoDB** and **DynamoDB**, optimizing data models to support high-throughput applications and reducing infrastructure costs by **$250K annually**.

Projects

Edu-Genius | *MERN Stack, AI, GPT-4o-mini* | **GitHub** Jan. 2025 – Dec 2025

- Full-stack AI-powered educational platform built with **MERN stack**. Features intelligent tutoring via **LLM integration**, user management with **JWT authentication**, and persistent chat system with **MongoDB**. Includes rate limiting, **CORS protection**, and responsive **React** frontend with **Material-UI**.

Traffic Accident Prediction System | *Python, LLM, Data Mining* Aug. 2024 – Dec. 2024

- Applied ML models to analyze urban collision patterns, achieving an AUC-ROC of **0.9939** and accuracy of **96.83%**.

Android Malware Detection | *Python, LLM, Cybersecurity* Aug. 2024 – Dec. 2024

- Built ML-based malware detection system with **81% accuracy** using behavioral analysis and Random Forests.

Technical Skills

Languages: Java, C++, C, Python, JavaScript, HTML/CSS, Shell Scripting, TypeScript, SQL
Front-End: Angular.js, Angular, Bootstrap, jQuery, AJAX, React.js, Node.js, JSON, Material-UI
Back-End: Flask, FastAPI, Django, Spring Boot, Spring MVC, Ruby on Rails
Databases: AWS DynamoDB, MySQL, MongoDB, Google BigQuery, PostgreSQL, Redis
Tools: Git, Visual Studio, PyCharm, IntelliJ, Eclipse, Docker, Kubernetes, Jenkins, Linux
Libraries: pandas, NumPy, Matplotlib

Achievements

- Received **"Innovation Excellence Award"** for developing a solution that reduced processing time by **30%**.
- Awarded **"Best Performance Award"** for exceeding performance targets by **150%** over two consecutive quarters.
- Recognized with **"Outstanding Achievement in Automation"** award for designing a system that improved efficiency by **40%**.