MANDAR DHAMALE

Software Engineer

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Full-Stack Developer experienced in building scalable applications using Java, React, and microservices. Skilled in end-to-end development and cross-functional collaboration. Currently pursuing a Master's in Computer Science at the University of South Florida.

EDUCATION QUALIFICATIONS

Master of Science (MS) in Computer Science **August 2025 – Present**
University of South Florida, Florida, United States

Bachelor of Engineering (BE) in Computer Science | GPA: 3.5 **August 2018 – May 2022**
Savitribai Phule Pune University, Maharashtra, India

SKILLS

- **Languages:** Java, Python, C#, C/C++, JavaScript (ES6+), HTML, CSS
- **Databases:** MySQL, MS SQL Server, Elasticsearch
- **Frameworks/Libraries:** Spring (Boot, Security), React.js, TensorFlow, Keras, scikit-learn, Pandas, NumPy, Bootstrap
- **Cloud/DevOps:** AWS (EC2), Docker, Kubernetes, Jenkins, Kafka
- **Tools:** Postman, Git, IntelliJ, Visual Studio, Jupyter, Maven/Gradle, Swagger, Linux
- **Skills:** REST APIs, Microservices, DB optimization, Testing/Debugging, DSA, Algorithms, System Design, OOP, CI/CD, Agile/Scrum

WORK EXPERIENCES

Ivalua Inc. | Role: Software Development Engineer **October 2022 – August 2025**

- Engineered and enhanced core backend modules in Java and Spring Boot, improving API response times by ~30% through code optimization and multithreading
- Optimized SQL database schemas and queries using SQL Profiler, reducing average query execution time by ~25% and accelerating data retrieval for procurement analytics.
- Designed and tested RESTful API endpoints for custom procurement workflows, using Postman to validate integrations and reduce post-release defects by ~20%.
- Contributed to an Agile/Scrum development team using Git for version control; delivered features in 5+ major releases per year, boosting code quality via rigorous code reviews and cutting deployment failures by ~20%.
- Utilized Datadog for real-time performance monitoring and tuning, proactively identifying bottlenecks and reducing system downtime by ~15%
- Technologies/Tools Used: Java, Spring Boot & Security, RESTful APIs, SQL, Git, HTLM, CSS, JavaScript, SQL Profiler, Datadog, Postman

PROJECTS

PhotoSync – Self-Hosted Photo Backup Solution (like Google Photos) View Project

- Engineered an Android application enabling automatic backup of Android photos to a self-hosted Spring Boot server, eliminating reliance on cloud services
- Implemented intelligent duplicate detection to prevent redundant uploads and optimize storage efficiency
- Developed Android client in Kotlin using Retrofit, Coroutines, and WorkManager for efficient, real-time background synchronization
- Technologies/Tools Used: Java, Spring Boot, Kotlin, Android SDK, Retrofit, REST APIs, MySQL, Gradle, Linux

Spring Boot Albums API with JWT Authentication and Authorization View Project

- Designed and implemented RESTful endpoints for albums and photos, supporting full CRUD operations with proper request validation.
- Integrated Spring Security with JWT-based stateless authentication; implemented role- and authority-based access control to restrict actions to resource owners.
- Enforced fine-grained authorization: only owners of albums/photos can modify, delete, or upload content.
- Applied Spring Boot best practices for layered architecture, including service, repository, and controller layers.
- Utilized token expiration and refresh mechanisms for session management and improved API security.
- Technologies/Tools Used: Java, Spring Boot, Spring Security, JWT, OAuth, MySQL, Swagger-UI, Postman, Maven

Convolutional Neural Network for Brain Tumor Detection View Project

- Built CNN model (3 convolution layers) achieving 97.83% accuracy on 2,800+ MRI scans
- Deployed via Flask web app: users upload scans → real-time tumor diagnosis
- Preprocessed data with OpenCV/Pillow; compared SVM/KNN performance
- Technologies/Tools Used: Python, TensorFlow, Keras, scikit-learn, NumPy, OpenCV, Flask, HTML, CSS, JavaScript

Loan Approval Prediction View Project

- Trained multiple ML models (Logistic Regression, KNN, Decision Tree, Random Forest, AdaBoost) to predict Loan Status, Loan Amount and Loan Term of various loan applicants, average model accuracy: 82%
- Performed EDA on the dataset and various statistical tests such as ANOVA, Chi-Square, Correlation to find the best predictors for the target variable & Clustered the applicants to find various segments in the data
- Technologies/Tools Used: Python, Jupyter Notebook, scikit-learn, pandas, Machine Learning

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