TRUSHIT PATEL

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EDUCATION

Masters of Aplied Computing, Wilfrid Laurier University **(3.9 GPA)** Sep 2023 - Dec 2024
Bachelor of Computer Science and Engineering, Indus University **(9.48 CGPA — 89.80%)** 2019 - 2023

EXPERIENCE

AI Engineer Remote
Scale AI Jan 2024 - Jun 2024
DataAnnotation Tech Jun 2024 - Present

- Evaluated the accuracy, functionality, and efficiency of LLM-generated code by executing, debugging, and comparing model outputs—contributing directly to performance refinement and deployment readiness.
- Reviewed and corrected 1000+ model response issues in real-world programming tasks, improving the accuracy and contextual relevance of AI outputs across various domains.
- Identified and resolved complex logic and syntax errors, improving code reliability and significantly reducing post-deployment issues.
- Acted as a task reviewer by assessing and correcting AI model responses related to programming, providing feedback to the task attempters, and adjusting their model selection and justifications as needed.
- Designed and submitted high-complexity prompts for code generation tasks, identifying failure patterns and suggesting model improvements.
- Developed and applied automated testing frameworks using Docker to validate AI-generated code, reducing manual review overhead and increasing throughput.
- Maintained an accuracy rate exceeding 90% in all submitted evaluations, resulting in increased model reliability and lower downstream error rates.

Software Development Engineer Jan 2023 - Jun 2023
Teksun Inc *Ahmedabad, India*

- Developed e-commerce applications using Spring Boot, ensuring scalability and efficiency. Tested system performance with over 10,000 mock products.
- Built real-time chat applications using the MEAN (MongoDB, Express.js, Angular, Node.js) stack and integrated Socket.io for seamless communication.
- Developed a class-based SDK in TypeScript and Node.js, providing a high-level interface for WebSockets with authentication and authorization features.
- Enhanced system performance and user experience, optimizing response times and security.
- Implemented backend business layer using Spring MVC, Spring IoC, Spring Transactions, and Spring Security modules.
- Created a multi-module Maven project integrating Spring Boot, REST APIs, Oracle, and microservices architecture.
- Developed microservices using Java Spring Boot, Hibernate, and RESTful services, emphasizing clean, maintainable code.
- Wrote test plans, tested and debugged code using Postman, ensuring stable and accurate backend behavior.
- Designed and developed front-end UI components using HTML5, CSS3, JavaScript, and JSP.
- Managed web-based modules using Java Servlets and JSP, improving application maintainability and readability.
- Deployed components on Apache Tomcat and contributed to testing and bug fixing, enhancing overall application performance.

Software Development Engineer Intern Jan 2022 - Jun 2022

Softvan Pvt. Ltd. *Ahmedabad, India*

- Configured the Spring Boot framework to implement the micro-service architecture, enabling the development of self-sustaining and modular software applications.
- Used the Hibernate Framework and the Singleton Design Pattern to facilitate Java Database Connectivity through Object-Relational Mapping and Session-Factory.
- Established role-based access control, authentication, and authorization within applications using the Spring Security framework.

PROJECTS

Cloud-Based Replit Clone (Feb 2025 - Ongoing) Developed a cloud-native development environment inspired by Replit. Implemented autoscaling for dynamic resource allocation and user demands. Leveraged containerization and cloud for isolated code execution.

Image Forgery Detection using Deep Learning (Sept 2024 - December 2024) Built a complete image forgery detection pipeline using ELA and a custom ResNet-20 convolutional neural network trained on the CASIA2 dataset. Engineered an ELA-based preprocessing system to highlight JPEG compression artefacts, normalize pixel values, and resize images to 224×224 resolution. Implemented a memory-efficient image generator to dynamically load and preprocess data in batches during training. Achieved 89.02% training accuracy and 83.09% validation accuracy, with visualizations of ELA transformations and model performance over epochs. Saved the trained model and integrated it into a Python Django web application, providing an intuitive interface for users to upload images and receive real-time tampering predictions.

BidRideGo (Sep 2023 - Dec 2023) A bidding-based ride-booking Android app developed using Java, Android Studio, and Firebase Realtime Database. A unified platform where drivers bid on user-posted trips, giving both parties freedom from company standard prices. Implemented complete bidding logic, including user trip posting and real-time driver bidding. Built core backend features, including user authentication and secure data synchronization via Firebase. Developed both frontend UI and backend logic, ensuring seamless trip updates and live bid tracking. [apk].

Live Chat Application (Jun 2022 - Sep 2022) Real-time web chat app built with the MEAN stack and Socket.io. Designed and developed both backend servers (Node.js + Express + Socket.io) and frontend UI (Angular). Designed and optimized database schema in MongoDB for chat history and user metadata. The application has all key features: real-time messaging, chat history, active user status, last message preview, multi-media file types, and many more.

CMS with E-commerce (Oct 2022 - Dec 2022) Hosted on PythonAnywhere and developed with Python Django and SQLite, this a Content Management System integrated with an e-commerce site. A full-stack platform that manages both content and e-commerce operations. CMS provides a way to manage: pages, banners, blogs, cart items, categories, footer widgets, offers, payment partners, policy content, logos, navbar, orders, product listings, newsletters, and page sections. Developed custom e-commerce modules including cart logic, checkout flow, product CRUD, and admin controls. Implemented pagination, sorting, and filtering simultaneously for efficient product and content display. The same project with Spring-Boot and MySQL for the back-end can be found [Here].

SKILLS

Languages	Java, Python, TypeScript, and C/C++.
Frameworks	Spring-Boot, Spring-Security, Hibernate, Python-Django, and Android Studios.
Backend	Micro Services, RESTful, SOAP.
Parallel programming	MPI, OpenMP, and CUDA.
Web	HTML5, CSS3, jQuery, and Angular.
DBMS	MySQL, PostgreSQL, SQLite, MongoDB, and FireBase.
Build Tool	Maven, Gradle, and Docker.