Ashvin Parmar

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Summary

Backend-focused Java Software Engineer with real-world production internship experience and a strong systems engineering foundation. Designed and built three production-grade frameworks from scratch - a Spring MVC-equivalent web framework, a custom ORM with caching, and a reactive frontend MVC engine - before adopting Spring Boot and Angular, demonstrating deep Java internals mastery, sound system design judgment, and disciplined engineering practice.

Technical Skills

Languages: Java (Advanced), JavaScript (ES6+), C++ (Modern), SQL, HTML5, CSS
Frameworks & Libraries: Spring Boot, Angular, Java Servlets, Hibernate / JPA, JDBC, JSP
Backend: REST APIs, MVC Architecture, Dependency Injection, Annotation Processing, Classpath Scanning, Multi-threading, Concurrency, Session Management, JSON Serialization / Deserialization
Databases: MySQL, Relational Schema Design, Query Optimization, Connection Pooling
Tools & CS: Git, Maven, Apache Tomcat, Postman, Linux | DSA, OOP, Design Patterns (MVC, Front Controller, Proxy, Singleton), Java Reflection API

Professional Experience

Software Developer Intern | TechZest Global Solutions **Jul 2025 – Sep 2025**
Project: ZestAlgo — Institutional Algorithmic Trading Platform · C++ · Layered Architecture · Backend Systems Engineering

- Engineered the structural control plane of ZestAlgo, a high-frequency institutional trading platform, using a decoupled layered architecture in modern C++ that fully isolated execution management from core protocol decoders - improving module replaceability and reducing inter-layer coupling across latency-critical production pipelines.
- Designed and implemented core order validation logic and robust exception-handling infrastructure within the Order Management System (OMS) controller, enforcing state-machine integrity and eliminating invalid order transitions in high-throughput, fault-sensitive production workflows.

Projects

WEBRock — Servlet-based MVC Web Framework GitHub **Jan – Jun 2026**
Java · Servlets · Java Reflection API · Custom Annotations · iText · JavaScript ES6

- Architected a complete MVC web framework on raw Java Servlets with a front-controller dispatcher and `@PATH` annotation routing, eliminating rigid XML servlet definitions and replicating Spring MVC internals from first principles.
- Engineered a recursive classpath scanner that auto-discovers and registers all `@PATH`-annotated service classes at Tomcat startup, reducing new-endpoint configuration overhead by 90% with zero manual `web.xml` changes.
- Implemented multi-scope `@AutoWired` dependency injection across Request, Session, and Application scopes and a declarative `@SecuredAccess` guard interceptor via Java Reflection, cutting endpoint security boilerplate by 80%.
- Built an automated ES6 client SDK generator introspecting Java POJOs and service methods via Reflection to emit typed, Promise-based AJAX modules, guaranteeing 100% frontend-backend API contract synchronization with zero manual code.

ORMFM — Custom Object-Relational Mapping Framework GitHub **May – Jul 2026**
Java · Java Reflection API · JDBC · ThreadLocal · Custom Annotations

- Designed a Hibernate-inspired ORM with a fluent query-builder API and dynamic SQL generation via `@Table` / `@Column` annotations, eliminating raw JDBC boilerplate and reducing data-access layer code by ∼70%.
- Engineered a `ThreadLocal`-based session manager binding exactly one DB connection per thread, achieving strict transaction isolation in concurrent multi-threaded Servlet environments and preventing all connection leaks.
- Implemented an `@Cacheable` LRU cache backed by `LinkedHashMap`, serving frequent read queries in $O(1)$ time; built ORMFMTool CLI to auto-generate annotated POJO classes from live database schemas via `DatabaseMetaData`.

Achievements & Competitive Programming

- Solved **450+ LeetCode problems** across arrays, trees, graphs, dynamic programming, and binary search; maintained **950+ GitHub contributions** over the past year, reflecting consistent algorithmic practice and disciplined software engineering output.
- Built three independent, production-grade frameworks (WEBRock, ORMFM, MVCFM) from first principles before using Spring Boot or Angular, demonstrating an internals-first engineering mindset valued by top-tier engineering teams.

Education

B.Tech, Electronics & Telecommunication Engineering | IET DAVV, Indore **2023 – 2027**
CGPA: **7.5 / 10.0** Relevant Coursework: Data Structures & Algorithms, OOP, Operating Systems, DBMS, Computer Networks

Class XII & X (PCM) | Jawahar Navodaya Vidyalaya (JNV), Ratlam **2015 – 2022**
Class XII: **88.4%** | Class X: **87.6%**