MANJIT SINGH

Toronto, ON M5J0B5 | +1 (514)-549-1485 | manjitsingh07.1998@gmail.com | linkedin.com/in/manjit-singh-705996164

Professional Summary

- **Senior Software Engineer (Java 17 / Spring Boot 3)** with ~3 years of experience building **high-availability, mission-critical back-end systems** for capital markets and financial services.
- **Expert in microservices architecture, REST APIs, and event-driven messaging** (**Solace PubSub+**, MQBridge), with deep experience in **CI/CD automation** using GitHub Actions & JFrog Artifactory.
- **Proven record of cutting market data latency, saving six-figure annual vendor costs, and driving platform reliability** through robust observability (**ITRS Geneos, Grafana**).
- Strong background in **containerization** (**Docker, Podman**) and **Linux automation** (**AutoSys, Shell**), delivering seamless deployments and operational efficiency.

Skills

- **Languages / Tools:**Java 17, Python, Shell, Maven, JUnit 4/5, Git, IntelliJ IDEA
- **Frameworks / Infra / Platforms:**Spring Boot 2/3, Spring MVC, Spring JDBC, REST APIs, Catalys FIX Engine, Apache Tomcat, Docker, Podman, Design Patterns, Unix/Linux
- **Messaging / Integration / Data:**Solace PubSub+, Solace MQBridge, FIX, SFTP, Kafka, Oracle DB, Databricks, Redis, NGINX, F5 Load Balancer
- **DevOps / Monitoring / Scheduling:**GitHub Actions, JFrog Artifactory, AWS, Confluence, AutoSys, ITRS, Grafana

Experience

Senior Software Consultant – Fixed Income, Capital Markets **09/2023 to 06/2025**
CIBC **Toronto, Canada**

- **Modernized and re-architected a suite of event-driven microservices (Java 8 → 17, Spring Boot 2 → 3),** reducing average API and job execution times by **20%**, containerizing applications with Docker/Podman for rapid scaling, and improving uptime and cost-efficiency by migrating from IBM Solaris to RHEL servers.
- **Enhanced system scalability, security, and reliability** by introducing NGINX and F5 load balancers for high availability, implementing IP whitelisting and audit logging for secure API access, and supporting maintainability through thorough system documentation.
- **Migrated 300+ AutoSys jobs & shell scripts during the IBM Solaris → RHEL cut-over,** ensuring zero downtime and boosting production workflow availability to **99.99%** for critical batch and integration processes.
- **Reduced market data latency by 30%** through end-to-end event-driven processing: integrated Bloomberg FIX streams (Catalyst FIX → Solace Topics), and implemented Redis caching to optimize bond price distribution—accelerating thousands of **price updates from 6 minutes to 4 minutes** and enabling real-time data propagation.
- **Designed and implemented data streaming architectures** for Settlement, Allocation, and Inter-company Messaging using Solace PubSub+, secured external data flows via Solace MQBridge and SFTP.
- **Decommissioned legacy OMGEO (Allocation Trading System) and GLOSS & ARROW (Back-Office Settlement Systems);** introduced modern SFTP + ARROW-based microservices, saving **over $100K in annual costs** and modernizing data exchange patterns.
- **Co-authored a pluggable, self-service reporting microservice framework**—enabling BAs to onboard and schedule custom data extracts (CSV, XML, JSON) for external consumption via SFTP, email, or API, without dev intervention.
- **Designed, developed, and maintained RESTful APIs consumed by 10+ internal teams, processing over 10,000+ daily transactions across trades, positions, securities, and prices with 99.99% uptime,** enabling reliable access to critical capital markets data and powering automated integration workflows.
- **Developed comprehensive JUnit 4/5 test suites (90%+ coverage)** for all core microservices, integrated into CI/CD (GitHub Actions, JFrog Artifactory) for automated, production-grade releases.
- Leveraged **GitHub Copilot** and **CIBC's proprietary LLM-based AI tools** to accelerate development workflows, automate repetitive coding tasks, and enhance code quality—resulting in faster feature delivery and improved team productivity.

Functional QA / Technical Tester – Virtual Reality (VR) **03/2023 to 09/2023**
Keyword Studios **Montreal, Canada**

- Designed & executed test plans for **Meta Quest (Oculus) VR titles** in Unity/C#, using Quest dev tools for performance telemetry.
- Logged reproducible defects with **"Action – Expected – Result"** Jira titles; prioritized severity and tracked **100 +** issues across sprints.
- Built comprehensive regression suites and collaborated with engineers to validate hot-fixes in CI builds.
- Facilitated cross-disciplinary daily syncs (design, QA, engineering), accelerating **bug resolution** and ensuring on-time milestone delivery.

Software Developer & Machine-Learning Intern **01/2020 to 06/2020**
SASE Laboratory, DRDO **Chandigarh, India**

- Developed a Python-based backend service and automated ML pipeline to predict **snow-avalanche risk** for Indian Army bases using KNN, SVM, and ANN (**83 % accuracy**).
- Implemented **data ingestion and auto-preprocessing flows** from high-altitude sensors, enabling real-time decision support.
- Built a GUI-based model configuration interface allowing users to select algorithms and train models using **(5/10/20) years** of historical data.
- Designed and **deployed scheduled pipelines** to generate daily avalanche forecasts and **CSV** reports.
- Delivered **visual dashboards** in Jupyter using Matplotlib for defense analysts to interpret risk scores.

Education

MEngg.: **Software Engineering** **08/2022**
Concordia University Montreal

B.E.: **Computer Science & Engineering** **09/2020**
Punjab University Chandigarh