TANJOT SINGH

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EDUCATION

Bachelor of Science - Computer Science   May 2021 – Dec 2025
University of Victoria   **GPA: 3.86 / 4.0**

WORK EXPERIENCE

Software Developer - Co-op   May 2023 – Aug 2024
BC Pension Corporation   Victoria, BC

- Built and maintained UI regression automation in **TestComplete** using reusable **Python** utilities and stable end-to-end workflows.
- Wrote **REST API** tests using **Postman** and Python scripts to call endpoints and verify responses by cross-checking results against Oracle database queries.
- Built Python data pipelines **(Pandas, NumPy)** to parse large CSV and **JMeter** logs, then produced metrics and **Matplotlib** charts to support performance analysis and anomaly investigation.
- Designed and implemented a **Click-And-Record** test authoring tool plus a **SessionCreator** based remote execution workflow, enabling distributed multi-node test runs and reducing manual QA effort by ∼**30%**.
- Used complex **SQL (PL/SQL)** on multi-million-row **Oracle** databases to validate system behavior, debug defects, and ensure end-to-end data integrity; collaborated with developers, BAs, and QA via **Git/GitHub**, documentation, and onboarding sessions.

Teaching Assistant, CSC 361 Networks & Communications   Sep 2025 - Dec 2025
University of Victoria   Victoria, BC

- Led weekly networking labs, explained core concepts in clear steps, and coached students through hands-on exercises; Demonstrating strong leadership and communication in a fast-paced classroom setting.

SKILLS

Programming Languages:	**Python, Java, C**, Golang, JavaScript
Databases:	**SQL, Oracle PL/SQL, PostgreSQL**, MongoDB, MySQL
Web & Backend:	**React, Node.js, Express.js**, Django, Flask, REST APIs, JWT
Data & Analysis:	**Pandas, NumPy, Matplotlib**, OpenPyXL
DevOps & Tools:	**Docker, Nginx**, Git/GitHub, Linux, RabbitMQ
Automation & Testing:	API testing, TestComplete, TestExecute, SessionCreator, Selenium, JMeter

PROJECTS

Full Stack Day-Trading Platform | (Golang, REACT, Django, MongoDB, Docker)   *Sept 2025 – Nov 2025*

- Designed a microservices based trading platform with clear service boundaries and high-concurrency request handling, emphasizing reliability and performance under load.
- Developed services in Golang (JWT auth) and Django/Flask (profiles, wallets, stock listings, order matching), backed by sharded MongoDB and Nginx load balancing.
- Containerized and scaled services with Docker and health checks, and validated performance/stability using Apache JMeter load testing.

Mini-Me Discord Bot | (Golang, Discord API, YouTube API, Git)   *Jan 2025 – Feb 2025*

- Built a Discord bot with music streaming, interactive commands, playlist management, and user profile features.
- Implemented concurrent audio streaming using goroutines, integrated the YouTube API, and optimized request handling for low-latency responses.

Auction Portal Web Application | (Django, Python, REST, SQLite)   *Oct 2024 – Dec 2024*

- Developed a Django-based auction platform with normalized models for listings, bids, comments, and watchlists using the Django ORM.
- Built REST APIs for browsing with category filters, bidding, commenting, and watchlists, and customized the Django admin for moderation workflows.

ACADEMICS

Notable Coursework: Algorithms & Data Structures, **Scalability Engineering**, Database Systems

Certificates: HarvardX CS50x (Intro to CS), HarvardX CS50 Web Development, HarvardX CS50 AI, LinkedIn Learning React: Advanced Code Challenges