

NIKHIL DHILLON

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EDUCATION

University of Victoria

Bachelor of Science in Honours Computer Science

Victoria, BC

Expected December 2026

Relevant Coursework: Data Structures & Algorithms, Data Mining, Database Systems, Operating Systems, OOP

EXPERIENCE

Software Developer

One Nation

Remote (Vancouver, BC)

May 2025 - July 2025

- Built a natural language-driven reporting pipeline using OpenAI API and PostgreSQL, enabling users to generate custom insights in under 20 seconds
- Implemented a secure and intuitive password reset workflow using Laravel Filament, improving user experience and reducing support overhead
- Streamlined performance by offloading intensive operations with Laravel Jobs and Queues, achieving up to 100× faster page response times
- Developed custom WordPress plugins to extend core CMS functionality, integrate with third-party APIs, and deliver performance-tuned solutions based on client-specific requirements

Software QA Analyst

Reliable Controls

Victoria, BC

September 2024 - April 2025

- Built robust end-to-end and regression testing frameworks using Playwright and JavaScript, reducing manual testing efforts by over 30% while achieving 40% test coverage across core workflows
- Structured and refined over 50 functional and non-functional test cases in TestRail, improving QA coverage and compliance with best practices
- Drove the successful launch of the Offline Engineering Configuration project for enterprise clients under strict timelines, boosting feature reliability and user satisfaction
- Accelerated the average QA review cycle time by 40% through process optimization and enhanced automation strategies, as reflected in KPI metrics, leading to a 15% increase in sprint velocity

PROJECTS

Wearlyze | PyTorch, YOLOv8, CLIP, FAISS, Django, Transformers

May 2025 - July 2025

- Developed Wearlyze, a machine learning-powered outfit recommendation system that identifies garments in user-uploaded images and retrieves visually similar products from a database of 50K+ retail listings
- Fine-tuned YOLOv8 on the DeepFashion2 dataset (800K+ labeled items), achieving 85%+ mAP@50 for segmentation and classification of apparel
- Engineered a high-performance vector similarity pipeline using CLIP embeddings and FAISS, reaching over 90% top-3 retrieval accuracy with sub-100ms latency
- Designed and evaluated the end-to-end system using A/B-style testing simulations and top-k accuracy metrics to optimize model precision and recommendation quality

Project X | Node.js, Express.js, React Native, Sequelize, StripeAPI, REST API

January 2025 - Present

- Constructed a cross-platform full-stack application with a React Native front-end and a Node.js/Express back-end
- Optimized API performance, reducing response times by 30% through query restructuring, load balancing with Nginx, and Redis caching
- Implemented secure user authentication with Passport.js, reducing authentication failures by 50% through JWT-based session management and OAuth integration
- Engineered real-time delivery driver tracking, enhancing transparency and improving drop-off time accuracy by 20% through GPS integration, live location sharing, and route optimization algorithms.

TECHINICAL SKILLS

- **Programming Languages:** Python, Java, C, C++, HTML/CSS, JavaScript/TypeScript, AVR Assembly, SQL, R, PHP
- **Frameworks and Libraries:** Express.js, React, React Native, Node.js, Flask, Django, PyTorch, pandas, NumPy, Matplotlib
- **DevOps and Tools:** Git, Docker, Kubernetes, Linux, Microsoft Azure, Google Cloud Platform, AWS (EC2, S3, Lambda, RDS)
- **Data Science & Modeling:** GLMs, Logistic Regression, A/B Testing, Hypothesis Testing, Cross-Validation, Model Evaluation (F1, Precision/Recall)