Farhan Labib

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EDUCATION

University of Calgary Calgary, AB

BSc in Computer Science *Expected 2027*

- **Relevant Coursework:** Database Management Systems, Data Structures & Algorithms, Software Project Management, Computer Networks, Software Design

TECHNICAL SKILLS

Languages: Python, TypeScript, Java, JavaScript, SQL, HTML/CSS
Frameworks & Tools: React Native, Expo, Next.js, Flask, Streamlit, Supabase, MySQL, PostgreSQL
ML/Data Libraries: PyTorch, Scikit-learn, Pandas, NumPy
Developer Tools: Git/GitHub, Jira, ClickUp, Power BI, Tableau, VS Code, Linux

PROFESSIONAL EXPERIENCE

Senior Supervisor May 2023 – Present

Dairy Queen *Calgary, AB*

- Streamlined workflows by documenting and standardizing store procedures, achieving **20% faster** service times through clear process mapping and role assignment.
- Tracked inventory and sales patterns using Excel-based reporting to reduce waste by **10%** through operational improvements.
- Trained and mentored **12+** new team members; improved onboarding efficiency by **30%** using structured checklists and performance tracking.

PROJECTS

The Gist - Capstone | *React Native, Expo, Next.js, Supabase (PostgreSQL), TypeScript, Hugging Face* Present

- Collaborating in a **5-person team** to deliver a **cross-platform news application** (mobile + web) using a shared **TypeScript** codebase.
- Designed and implemented **Supabase Auth**, user profiles, and secure **PostgreSQL**-backed access with **role-based permissions**.
- Integrated **Hugging Face API** for **NLP summarization** to generate concise article summaries and improve readability.
- Optimized **search and filtering** using performance-focused **query patterns** to support fast retrieval and relevance-based results.
- Contributed in an **Agile** workflow through sprint planning, **task tracking**, and **code reviews** to meet milestone.

CIFAR-10 CNN Image Classifier | *PyTorch, Torchvision, Scikit-learn, Streamlit, Power BI* Jan. 2026

- Created an **end-to-end** deep learning experiment comparing a custom CNN against **ResNet18 transfer learning** on CIFAR-10.
- Trained models using Adam, CrossEntropyLoss, and learning-rate scheduling; persisted **best checkpoints** and evaluation metrics for reproducibility.
- Produced model diagnostics including **classification reports**, confusion matrices, and training curves; presented results through a **Streamlit dashboard**.
- Built a Python **ETL pipeline** to transform experiment outputs into BI-ready datasets and authored a **Power BI dashboard** for model comparison.

AI-Powered Medical Prediction Toolkit | *Python, Scikit-learn, Pandas, NumPy* Apr. 2025

- Developed a **modular ML toolkit** to clean, scale, and transform tabular datasets for consistent preprocessing and modeling workflows.
- Evaluated Logistic Regression and SVM using **cross-validation** and **GridSearchCV**; benchmarked ACC, F1, MCC, sensitivity, and specificity.
- Automated **diagnostic analytics** (feature importance, correlations, ROC/PR curves, PCA/TSNE) to surface model insights and performance tradeoffs.

Computer Component Store (DBMS Group Project) | *Flask, MySQL, HTML/CSS/JS*   Feb. 2025

- Delivered a full-stack inventory and ordering platform with role-based admin capabilities (orders, inventory, suppliers, deliveries, employees).
- Modeled relational entities in **MySQL** and implemented Flask backend endpoints with environment-based configuration.
- Implemented customer workflows including authentication, product browsing, cart operations, checkout, and order history.

Self-Checkout System Simulator (Group Project) | *Java, Swing, JUnit*   Dec. 2024

- Engineered a self-checkout desktop system with customer and attendant interfaces using **Swing (JFrame/JPanel)**.
- Implemented shopping orchestration: barcode/PLU entry, bagging-area weight validation, discrepancy handling, and device enable/disable logic.
- Simulated coin/banknote/credit/debit payment flows and validated behavior using automated **JUnit** tests.