Alvi Shariar Matin

438-336-0965 | <u>alvimatin@gmail.com</u> | linkedin.com/in/Alvi | github.com/Meltcus

Education

Concordia University

Bachelor of Computer Science – Joint Major in Data Science

EXPERIENCE

Flutter Developer (Freelance)

3 Amigos Group Inc, 1657 Saint-Catherine St W, Montreal

- Designed, developed, and deployed a cross-platform **Flutter mobile app** integrated with **Firebase Authentication, Firestore, and Cloud Functions** for full-stack inventory management.
- Built real-time features including stock adjustments, audit trails, transaction history logging, and low-stock notifications using NoSQL database triggers and backend logic.
- Implemented secure, scalable **role-based access control (RBAC)** for Admins, Managers, and Staff with active user adoption and ongoing usage.
- App is currently in production at the flagship location, with plans to expand across all **8 branches** to streamline restaurant-wide inventory workflows.

Junior Data Analyst

3 Amigos Group Inc, 1657 Saint-Catherine St W, Montreal

- Tracked and reconciled daily sales, expenses, and labor costs across multiple branches using **Excel**, **Google Sheets**, and point-of-sale exports.
- Created and maintained weekly operational dashboards and custom reports to support **management decision-making** and financial audits.
- Worked cross-functionally with operations and accounting teams to streamline **data entry**, validate discrepancies, and improve reporting accuracy.

Projects

Medical Image Segmentation with Deep Learning | Python, PyTorch, U-Net

- Achieved 1st place and won a \$1,000 cash prize in a competitive project sponsored by Huron Consulting Group, collaborating in a team to develop the top-performing solution.
- Developed automated segmentation models using a proprietary dataset of 17,375 tissue images and masks to assist pathologists in tissue analysis.
- Trained and evaluated U-Net, U-Net++ with SCSE attention, and SegFormer with ResNet34 and EfficientNet encoders, achieving a final IoU of 93.38%.
- Implemented a robust data augmentation pipeline with rotations, zooming, gamma correction, and Gaussian noise to improve model generalization.

Pet Adoption Web Application - Full Stack | Node.js, Express, EJS

- Developed a full-stack pet adoption platform using Node.js, Express, and EJS for dynamic user interactions.
- Implemented secure authentication and session management with Express Sessions and JWT.
- Built a **RESTful API** for handling pet listings, adoption requests, and user management.
- Designed an interactive UI with EJS templates, enabling seamless pet submissions and real-time updates.

Food Ready Dashboard (Kitchen-Waiter Call System) | *HTML*, CSS, JavaScript Dec. 2024

- Designed and deployed a full-screen HTML/JS dashboard to display food-ready alerts in a live restaurant setting, replacing manual kitchen-to-waiter calls.
- Implemented responsive **auto-scaling tiles** with staff ID tags, timers, and clickable removal for seamless use in fast-paced kitchen environments.
- Configured for 24/7 deployment in kiosk mode via Mozilla Firefox at the restaurant's kitchen station.

TECHNICAL SKILLS

Languages: Python, Java, JavaScript (ES6+), TypeScript, SQL, Dart, C, C++
Frameworks: Node.js, Express.js, React.js, Next.js, Flask, FastAPI, Flutter
Databases: PostgreSQL, MySQL, Firebase Firestore, MongoDB
Cloud & DevOps: Docker, Google Cloud Platform (GCP), Firebase, CI/CD (GitHub Actions)
Developer Tools: Git, REST APIs, GraphQL, WebSockets, Linux, VS Code, Postman, JIRA

Dec. 2024 – Present

Expected Dec. 2025

Montreal, QC

Montreal, QC

Jan. 2024 – Present

Montreal, QC

Mar. 2025

Feb. 2025

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CIFAR-10 Image Classification | Python, PyTorch, scikit-learn, OpenCV

- Developed image classification models on the CIFAR-10 dataset (60,000 images, 10 classes).
- Trained and compared Naïve Bayes, Decision Tree, MLP, and CNN models.
- Achieved 91.4% test accuracy with a \mathbf{CNN} using batch normalization and dropout.
- Optimized hyperparameters via Grid Search, tuning learning rate, batch size, and layers.
- Evaluated models with confusion matrices, precision, recall, and F1-score (0.91).
- Applied data augmentation and OpenCV preprocessing, increasing accuracy by 3.7%.

TECHNICAL SKILLS

Linguistic Languages: English, French, Spanish, Bengali
Languages: Python, SQL (PostgreSQL, MySQL), R, Java, JavaScript, HTML/CSS
Frameworks: Flask, FastAPI, PyTorch, TensorFlow, scikit-learn
Libraries: Pandas, NumPy, SciPy, Matplotlib, Seaborn, Plotly, statsmodels
Developer Tools: Git, Docker, Google Cloud Platform, Jupyter Notebook, VS Code, PyCharm
Relevant Courses: Machine Learning, Deep Learning, Big Data Analytics, Data Visualization, A/B Testing

Montreal, QC Expected Dec. 2025

Dec. 2024 – Present

Montreal, QC

Jan. 2024 – Present

Montreal, QC

Mar. 2025

Jan. 2025