

Michael Ferreira

416-234-9266 | michaeljf.2007@gmail.com | linkedin.com/in/michael-j-ferreira | github.com/michaeljf07 | michaelferreira.me/

EDUCATION

University of Waterloo <i>Bachelor of Computer Science</i>	Waterloo, ON Sept 2025 – Apr 2030
Wilfrid Laurier University <i>Bachelor of Business Administration</i>	Waterloo, ON Sept 2025 – Apr 2030

TECHNICAL SKILLS

Languages: TypeScript, Python, JavaScript, Racket, C, HTML/CSS, SQL (Postgres), Swift

Technologies: React, Node.js, Django, Next.js, TensorFlow, TailwindCSS, Git, Docker, Chrome DevTools

Libraries: pandas, NumPy, Matplotlib, openpyxl, Axios, Scikit Learn, OpenCV, SwiftUI

EXPERIENCE

Software Developer Intern <i>Cache</i>	Feb 2026 – Present Toronto, ON
<ul style="list-style-type: none">Led end-to-end deployment of Stripe payment processing, authentication, and user management across a React web app and iOS Swift app, supporting 100+ users and 1,500+ transactionsDesigned and optimized a PostgreSQL database on Supabase powering 50+ API endpoints, achieving sub-100ms response times through caching, denormalization, and memoizationDelivered 10,000+ lines of production code across the full stack and mobile app, driving \$5,000+ in revenue and enabling 5x user growth through feature development and performance improvements	
Software Engineering Intern <i>Local Reach</i>	Nov 2024 – Mar 2025 Kingston, ON
<ul style="list-style-type: none">Refactored the website to leverage SSR and SSG techniques, reducing client-side bundle size by 68% and improving initial page load time from 2.8s to 0.9s.Developed YOLO computer vision pipeline for automated TV display recognition in retail stores, achieving 30+ FPS throughput with sub-500ms latency through OpenCV preprocessing; technology acquired by Taiv (YC W20)Engineered a neural network audio classifier using MFCC, mel-spectrogram, chroma, and tonnetz features using librosa, achieving 92% accuracy with a 3-layer dense architecture optimized through 64-epoch training	
Charity CEO and Lead Developer <i>Baobab</i>	Dec 2024 – Aug 2025 Toronto, ON
<ul style="list-style-type: none">Built and deployed a full-stack MERN donation platform serving 10 charitable organizations with 90+ active users, contributing 9K+ lines of production code that facilitated \$1,000+ in donationsImplemented JWT-based authentication with bcrypt password hashing and RBAC protecting 50+ API endpoints while maintaining sub-100ms average response timeOptimized MongoDB schema with compound indexes on 3 core collections achieving 40% faster query performance and supporting 10x data volume scalability through denormalization strategies	

PROJECTS

Sublet Centre <i>TypeScript, Next.js, PostgreSQL, Supabase, Docker, TailwindCSS</i>	Nov 2025 – Present
<ul style="list-style-type: none">Built a full-stack subletting platform to support 100+ listings, targeting off-campus student housingImplemented secure authentication and role-based access control using Supabase AuthUsed denormalization in PostgreSQL schema to manage listings and user data, while reducing query latencyDeveloped server-side rendered search and filtering features, improving SEO performance and reducing initial page load time by 250%	
Forex Predictor <i>Python, Scikit Learn, Pandas, NumPy, Matplotlib, YFinance</i>	Sept 2025 – Dec 2025
<ul style="list-style-type: none">Engineered 90+ features from technical indicators (RSI, MACD) and macroeconomic data to predict forex price movements with 93% accuracy in direction classification for predicting currency movements in 5 yearsTrained Random Forest and Gradient Boosting models using time-series cross-validation, achieving $R^2 = 0.84$ on EUR/USD next-day returnsAutomated data ingestion and evaluation pipelines, processing 100,000+ historical data points across multiple currency pairs over 25 years using the Yahoo Finance API	