

# Firas Adnan Jalil

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## TECHNICAL SKILLS

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**Languages:** Python, JavaScript, TypeScript, Java, SQL, Dart, Swift

**Frameworks/Tools:** React, NextJS, TailwindCSS, FastAPI, Flask, Flutter, Celery, Redis, Firebase, Supabase

**Machine Learning:** TensorFlow, Scikit-Learn, Pandas, NumPy, Matplotlib

**Databases:** PostgreSQL, MongoDB

**Developer Tools:** Git, Figma, Docker, REST APIs

## EDUCATION

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### University of Toronto

Expected Graduation: May 2028

*BSc Computer Science, specialized in Artificial Intelligence*

*Toronto, ON*

- Organizations: St. George Capital (Member)

## EXPERIENCE

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### Data Analyst Intern

Sept. 2024 – Jan. 2025

*Vertige Investment Group*

*Toronto, ON*

- Engineered an LSTM stock price prediction model using TensorFlow, achieving 80%+ prediction accuracy
- Developed a Python pipeline to preprocess financial data from Yahoo Finance API with Scikit-Learn and NumPy
- Designed and backtested a simulated trading strategy with \$10000 mock capital, presenting insights with Matplotlib to 10+ interns

### Mobile Developer Intern

Jun. 2022 – Aug. 2022

*Our Wave Hub*

*Toronto, ON*

- Built Outpost, an iOS mental wellness app using Swift in Xcode, delivering full MVP in 3 weeks
- Integrated journalling, daily planning, and gamification features to promote consistent usage and user engagement
- Presented app to 160+ developers and OWH directors, earning 5th best application overall

## PROJECTS

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### SYNCER | *React, FastAPI, Celery, Redis, Supabase*

May. 2025 – Present

- Developed a Chrome extension to sync and merge Spotify and YouTube playlists using React + TailwindCSS (Vercel), FastAPI (Render), and Celery + Redis for async song processing
- Designed a Levenshtein fuzzy matching algorithm with tokenization, improving cross-platform song matching
- Integrated OAuth 2.0 authentication for both platforms with persistent token caching using Supabase and flow state management
- Collected feedback from beta testers and improved UX with manual search fallback for poor song matches, increasing song sync success rate

### LSTM Visualizer | *Tensorflow, Flask, React*

Dec. 2024 – Jan. 2025

- Built a React web app that visualizes price predictions and trading signals using LSTM models
- Deployed a scalable backend using **Flask** and hosted with **Fly.io** as a part of a cloud deployment, integrated with a **Vercel**-hosted frontend
- Calculated the difference between predicted prices and used it to generate buy-sell signals, then applied the signals to the predicted prices to generate strategy performance

### Study Showdown | *NextJS, TailwindCSS, Prisma, MongoDB*

Aug. 2024

- Built a Chrome extension to gamify productivity by tracking browsing activity and grading study sessions
- Developed an accompanying NextJS-based website with Google sign-in via Auth0 and saving data with Firebase and Prisma, completing the MVP in 24 hours

### RecipeLens | *Edamam API, Dart, Flutter*

Aug. 2023

- Built a Dart mobile app to index 900k+ ingredients from typed or text-to-speech input via Edamam API
- Prototyped using Figma and designed a responsive UI for cross-platform devices with Flutter, winning Best UI/UX Design out of 300+ participants
- Interfaced Spoonacular API to fetch 5000+ recipes and display accompanying SVG images.