

Mohammadamin (Amin) Sedaghat

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Education

University of Waterloo | Faculty Average: 98%

Sep 2024 - Present

Bachelor of Computer Science

Waterloo, Ontario

- **Relevant Courses:** Algorithm Design and Data Abstraction (Advanced) - Designing Functional Programs - Tools and Techniques for Software Development

Experience

Machine Learning Engineer

Feb 2025 - Present

WAT.AI

Waterloo, Ontario

- Developed an advanced anomaly detection model by leveraging **Long Short-Term Memory (LSTM)** networks and **autoencoders** with the **Keras** library in **TensorFlow**, significantly enhancing the operational performance of oil rigs
- Optimizing the extraction, processing, and intake of data from the **Diskos dataset** by creating an intake system using **kafka streams**, which is utilized internally by **20+ members** for training, testing, and validating the models/algorithms
- Developed an **(ANN)** algorithm utilizing **TensorFlow** to analyze recent oil rig data, enabling accurate predictions

Lead Full Stack Web Developer

Dec 2024 - Present

UWDBC

Waterloo, Ontario

- Recruited and lead a **team of three** developers to architect, develop, and launch a **dynamic web platform** using **NextJs**, enhancing club connectivity with athletes and improved club discoverability within the community
- Engineered and integrated dynamic **content management features** using **Prismic.io**, streamlining update workflows
- Designed the website using **figma** implementing new pages-including a gallery, executive profile, and store
- Launched a prototype on **Vercel** that delivered real-time user interaction analytics and integrated **webhooks**, and **perview features** to seamlessly interface with **Prismic.io** for an optimized **content management** workflow.

Software Developer Intern

Sep 2024 - Dec 2024

UWCSC

Waterloo, Ontario

- Developed a predictive model, **Stock ML**, using **LSTM** to analyze stock market trends based on historical data
- Built a web-scraping tool with **Python**, **Newspaper3k**, and **Scrapy** to gather targeted financial news
- Integrated **Alpha Vantage API** to access and incorporate real-time and historical stock data for predictive analysis

Projects

Snake Futuristica | 🌐 JavaScript, HTML, CSS

December 2024

- Engineered a modernized snake game, utilizing JavaScript **Canvas API**, featuring adjustable speed, block size, and dynamic obstacle placement, with smooth frame rendering and modular game logic to enhance user experience
- Optimized **UI/UX** with smooth controls and implemented dynamic visuals, including visual effects, animations and responsive design

Accentify.Study | 🌐 HTML, CSS, JavaScript, Python

October 2024

- Developed a user-friendly website to address **accent bias**, delivering a solution with a team of four at Newhacks9
- Implemented accent analysis using **TensorFlow** to assess vocal characteristics and provide personalized feedback
- Designed and Engineered the frontend of the project implementing modern practices such as responsive design

HarvestAid | 🌐 HTML, CSS, JavaScript, React, Python, Flask, NextJs

October 2024

- Designed and implemented an intuitive user interface with a focus on **UX** and responsive design, using **NextJs**, **React**, and **CSS** to create a seamless resource-sharing experience for farmers impacted by natural disasters
- Developed an **efficient search engine** feature allowing users to filter resources by category, name, and location, enhancing accessibility and discoverability of essential items like produce, livestock, and equipment

Skills

Languages: Python, C/C++, Java, SQL, HTML/CSS, JavaScript, TypeScript, Bash, Haskell

Technologies: Transformers, Pytorch, Flask, Docker, Microsoft Azure, React, NodeJS, NextJS, ExpressJS, Pandas, Scrapy

Tools: Git, Github, MongoDB, VsCode, Jupyter Notebook, Vim, Prismic.io, Figma, Vercel