

MATHIEU DUFOUR

+1 (617) 817-0361 | contact@mathieudufour.dev | linkedin.com/in/mathieu-swe | devpost.com/mathieu-dufour

WORK EXPERIENCE

Full-Stack Software Engineer

August 2021 – Present

WFHomie, Permanent Full-time

Boston, MA (remote)

- Contributed to the development of a machine learning (NLP) microservice for the sentiment analysis and categorization of Slack message data.
- Developed WFHomie Kudos, a Slack app installed in 100+ workspaces and serving 500+ monthly users.
- Owned the front end of WFHomie's Analytics platform, using Airbnb's visx charting library for data visualization.
- Converted Figma designs into a full-fledged front-end application using React TypeScript and Tailwind CSS.
- Developed RESTful APIs in Node.js (Express) back-end servers.

Full-Stack Software Developer

May 2021 – August 2021

Coveo, Internship

Montreal, QC (remote)

- Member of the Workplace R&D team, responsible for the Digital Workplace line of products and connectors.
- Maintained, developed features, and wrote automated tests for microservices in C# (.NET), Scala, and Go.
- Implemented a point-and-click interface that improves the user experience of a crucial part of the Coveo platform.
- Participated in Agile ceremonies, including sprint planning and retrospectives.

Software Developer

January 2021 – April 2021

WFHomie, Internship

Montreal, QC (remote)

- Designed, implemented, and maintained features on the WFHomie platform, often working on tight deadlines to prepare features for clients.
- Implemented a booking system using the Stripe API, which now handles 21 transactions per month.
- Designed and implemented an authentication and access control system, now serving 1200+ users.
- Fully designed and implemented a Slack app installed and used monthly by 25+ companies.

Programmer Analyst

May 2019 – August 2019

CGI Inc., Internship

Quebec City, QC

- Developed a desktop application to automate the migration of mailboxes from on-premise Exchange servers to Office 365. The system reduced the time taken by technicians to set up and monitor a 10,000 mailbox migration from over 72 hours to less than 30 minutes, saving days of labor cost.
- Wrote PowerShell scripts to automate tedious tasks performed by technicians, saving time and lowering the likelihood of mistakes.

PROJECTS

Machine Learning | Python, TensorFlow, PyTorch, NumPy, Pandas, Matplotlib

September 2020 – December 2020

- Developed a convolution neural network for multi-label classification of image data.
- Implemented a multi-class logistic regression model from scratch.
- Prediction of the number of COVID-19 hospitalizations based on symptom search trends. Comparison of the accuracy of decision tree and KNN (k-nearest neighbors) algorithms.

Brain-Inspired Artificial Intelligence | Python, NumPy, Matplotlib

September 2020 – December 2020

- Gained experience reading, understanding, and applying ML research.
- Implemented a Hopfield network (recurrent neural network that reproduces the associative memory function of the brain) to store and recall images.
- Implemented a temporal difference learning model based on Foster, D J et al.'s paper.

EDUCATION

DeepLearning.AI

2021 – Present

Natural Language Processing Specialization

Remote

McGill University

2018 – 2021

Bachelor of Science in Software Engineering, Minor in Entrepreneurship

Montreal, QC

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, SQL (PostgreSQL), Python, Java, HTML, CSS

Frameworks: React, Node.js, Express.js, Tailwind CSS, Jest (testing), Redux, Liquibase

Developer Tools: Git, GitHub, GitLab, GCP (Google Cloud Platform), Terraform