

JUSTIN LACOSTE

(he/him)



Software Developer passionate about building software solutions involving data analysis and machine learning.

I am a sophomore at McGill University in Honours Computer Science with a minor in Statistics. I am currently looking for an internship opportunity in software development or data science for the summer of 2023.

Experience

Pyano

May 22' - Now

Co-founder, Lead Backend Developer

- **API:** Created a REST API with Node.js for user authentication and information logging and retrieving to serve the application. Deployed it on a Linux machine.
- **Data extraction and processing:** Developed a pipeline of algorithms to extract features from audio data and analyze and compare those features using statistical analysis.
- **Model Deployment:** Deployed PyTorch model on Linux machine with API to serve model requests.
- **Database:** Wrote the script to get and post information on our DynamoDB (NoSQL database).
- **Result:** Virtual piano teacher that gives the user feedback by comparing his intensity and tempo to the performances of professionals. Currently Beta testing with intermediate/advanced piano players.

Teameo

May 21' - August 21'

Software Developer

- **Reverse Proxy:** Developed a server with C# and .NET to forward the client's requests to the appropriate servers while keeping track of login information for future requests.
- **Frontend:** Implemented the UI/UX team's new designs in the web application with React (Typescript).
- **Client input:** Discussed with clients their specific software needs to add to the application.

Projects

Autonotes

Fall/Spring 21'

- **Design:** Designed the mobile UI with Figma
- **Frontend:** Developed the frontend with React Native and Redux.
- **ML Integration:** Built an API with PHP to allow the frontend to send audio clips to AWS Transcribe and receive transcripts of the speech-to-text model.
- **API:** Coded PHP API in Windows machine to serve requests such as signup, adding class and creating notes.
- **Storage:** Wrote SQL script to store, access and update information in MySQL database.
- **Result:** Automatic note-taking app for students using speech-to-text with audio playback following transcribed text.

Coin Predictor

Summer 21'

- **Data:** Collected 2 years of data on the 500 largest cryptocurrencies, then cleaned the data and normalized it.
- **Model:** Built and trained a Recursive Neural Network with an LSTM architecture using Keras (TensorFlow)
- **Deployment:** Deployed model on AWS Lambda with prediction requests served through API Gateway.

Education	Extra Courses	Awards	Software	Languages
McGill University Fall 2021-Winter 2024 B.S. Honours Computer Science with Statistics minor GPA: 3.91	<ul style="list-style-type: none">• Mathematical Modelling (Harvard Summer School)• Machine Learning (Coursera)• Deep Learning Specialization (Coursera)	<ul style="list-style-type: none">• ModelUN scholarship for leadership• MariHacks 3rd place for building a 2 sided-marketplace for sustainable consumption	<ul style="list-style-type: none">• Python• Javascript/React/Node.js• Java• C/C#/.NET• SQL• PHP	<ul style="list-style-type: none">FrenchEnglishSpanish (A2)