

# Cole Killian

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## Experience

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### Artifai Co-Founder

2020

- Goal is to make [neural style](#) technology available to non technical users, while streamlining the process for users to purchase their art on a poster/canvas.
- Developing a scalable backend with Google Cloud Platform, Firebase, and Node.js. Frontend is in React. Poster/canvas production is made possible with Printify integration. Payments are taken care of with Stripe.
- Work in progress. Competition will include [Deep Dream Generator](#).

### NeuroTech Dashboard Team

2020

- Goal of the project is to built a forearm band that can predict which keys a user is typing without the need for a keyboard. Non-invasive. Applications include augmented reality.
- Developed a dashboard in React for visualizing realtime ML model predictions and signal data.
- Developed a SocketIO server in Python for facilitating communication between ML model predictions and frontend applications written in React and Unity

### Age Prediction Via Methylation Data and Machine Learning

2019

- Developed a machine learning model in Keras for predicting a human's age based on a blood sample. Achieved 100% accuracy  $\pm 10$  years and  $> 90\%$  accuracy  $\pm 5$  years.
- Developed a [web interface](#) in Django that enables clients to interact with the machine learning model. Users can tune each of the 25 features and see how predicted age changes.
- Wrote a python notebook script for downloading and parsing raw methylation data from an [NIH database](#).

### Libravos Co-Founder: Phone Insurance Made Better

2019-2020

- Accepted to McGill's Dobson Cup and Lean Startup Program. [Pitchdeck](#).
- Developed an endpoint for a natural language processing ai chatbot powered by Rasa. It communicated with a mobile phone app built with react-native. [Devpost](#)

### Harvard Research Computing: Web and Database Intern

2019

- Developed a web interface in Django that enables clients to view, request, or terminate their storage allocations remotely.
- Designed a mysql database model for tracking storage allocations and storage transactions.
- Used Python to create a command line interface for interacting with the novel database.

### Aspine Co-Founder: Website and PWA Development

2018 - 2019

- Developed Aspine, a web interface that revolutionizes the user interface for Aspen, a grade checking service, with many new features and improved aesthetics. [Github](#) — <https://Aspine.us>
- Specifications: Uses Node.js and HTML request mimicking to extract students' information and display it nicely in a web app.
- Aspine is now preferred by over 500 students.

### FIRST Robotics Team Controls Co-Leader

2018 - 2019

- Developed a vision processing system for automating the operation of the robot using WPILib, a library desinged to simplify using OpenCV from a robot program.
- Constructed a driver control system in Java that allowed the robot to be operated remotely over wifi via a joystick.

## Education

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McGill University — B.Sc. Honors Stats and Comp Sci — [Coursework](#) — CGPA 3.97 Expected 2022

## Awards and Honors

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University: McGill Renewable Killam Entrance Scholarship

High-school: Harvard Book Award, Straight A Award, Excellence in Mathematics Award, Outstanding French Award

## Hobbies and Interests

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Gym, playing guitar, walking, jogging, and hiking

Entrepreneurial programming projects, blogging

Optimizing my workflow (.spacemacs, .zshrc, .i3/config). Competitive programming.

## Technical Skills

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**Programming Technologies**

GCP, Javascript (React, Node.js), Python (Django), L<sup>A</sup>T<sub>E</sub>X, Java, C++, Bash