

Cole Killian

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Experience

Artifai Co-Founder

2020

- Work in progress. Developing a website to compete with [Deep Dream Generator](#). We are adding functionality of purchasing generated art on a canvas with Printify integration.
- Developing backend with Google Cloud Platform, Firebase, and Node.js. Frontend is in React.

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 ± 10 years and $> 90\%$ accuracy ± 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

- Accepted to McGill's Dobson Cup and Lean Startup Program. [Pitchdeck](#). Phone insurance on your terms.
- Developed a mobile phone app in react-native that allows users to interact with a natural language processing ai chatbot powered by Rasa. [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 <https://aspine.us>, 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>
- Aspine is now preferred by over 700 students. It generates revenue by displaying ads for school clubs.
- Specifications: Uses Node.js and HTML request mimicking to extract students' information and display it nicely in a web app.

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

McGill University — B.Sc. Honors Statistics and Computer Science — CGPA 4.0

Expected 2022

Harvard University — Concurrent Enrollment During High School — CGPA 4.0

Awards and Honors

University: McGill Renewable Killam Entrance Scholarship

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

Hobbies and Interests

Going to the gym, playing guitar, walking, jogging, and hiking

Entrepreneurial programming Projects, blogging

Optimizing my workflow (.vimrc, .bashrc, .i3/config). Competitive programming.

Technical Skills

Programming Technologies

GCP, Javascript (React, Node.js), Python (Django), L^AT_EX, Java, C++, Bash