# Cole Killian

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## Experience

## Harvard Research Computing: Web and Database Intern - 350+ Hours

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: Website and Progressive Web App Development - 120+ Hours

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 500 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 Leader - 150+ Hours

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.

## Peer Partners: Admin, Developer, and Tutor - 350+ Volunteer Hours

2016 - 2018

- Wrote a text mining program that saves the Peer Partners administration 100 hours a year by automating the parsing of a several thousand-row long google sheet
- in addition to facilitating the Peer Partners program by pairing those in want of academic assistance and those capable of delivering academic assistance.
- Designed a website to keep students up to date with their peer partners profiles: bccpeerpartners.com
- Tutored high-school students in physics and math during lunch and after school.

## Plough and Stars (Restaurant): Social Media Manager - 70+ Hours

2018 - 2019

- Manage The Plough and Stars's Instagram, Twitter, website, SEO, publicity, and performance recording.
- Developed a python script using the Facebook Graph API that automatically uploads Facebook posts to Instagram.

#### DC Sail: Sailing Instructor - 480+ Hours

2017 - 2018

- Led as a sailing instructor for the Kids Set Sail program.
- Responsible for the education of six new students each week, teaching them how to rig and de-rig a sailboat, skipper and crew, tie important knots, and work together effectively.

## Education

 ${\bf McGill\ University--B.Sc.\ Honours\ Statistics\ and\ Computer\ Science}$ 

**Expected Graduation 2023** 

Harvard University — Concurrent enrollment during high school

## **Awards and Honours**

McGill Renewable Killam Entrance Scholarship

Harvard Book Award, Straight A Award, Excellence in Mathematics Award, Outstanding Achievement in French Award.

### Extracurricular Activities

Artificial Intelligence Club, Entrepreneur Club, Competitive Programming Club, Debate Team

Boston Sailing Center Frostbiting League. Placed first place out of twenty teams.

Competitive gymnast, Varsity diver, Varsity sailor, Captain of the winning Central Maryland Physics Olympics Team.

### Hobbies and Interests

Playing guitar and singing in a band, street performing, and managing my guitar cover YouTube channel

Going to the gym, cooking, walking, and hiking

Entrepreneurial Programming Projects

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

## Technical Skills

**Programming Technologies** 

Python (and Django), LATEX, Javascript (and Node.js), Java, Bash, SQL, Plotly