Tyler Kastner

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Education

McGill University BSc. Joint Honours in Math and Computer Science GPA: 3.84/4.00

Fall 2018-Present

Awards:

- NSERC Undergraduate Research Award
- Tomlinson Engagement Award for Mentoring

John Abbott College DEC Sciences Fall 2016-Winter 2018

Awards:

- Nick Arganski Award (Highest Achievement in Math)

Experience

Undergraduate Research Assistant (McGill University) Summer 2020

- Conducted research under supervision of Prof. Prakash Panangaden in the field of reinforcement learning, funded by NSERC. Topics were mainly theoretical (Hilbert-Space based metrics to determine state similarity), with a practical component of running experiments using Python.

Student Software Engineer (JacAdemy) (Startup) April 2020-Present

- Worked on developing a web-based intelligent tutoring software, using the dependently-typed language Idris for backend and Elm for frontend.

Teaching Assistant (McGill University) September 2020-May 2020

- Graded assignments and held tutorials for multiple Math courses (Math 248, Math 255, Math 358).
- Tutored at McGill's Math Help Centre, holding weekly office hours.

Projects

Machine Learning and Art Tensorflow

- I am very interested by the applications of machine learning to art. I have implemented various "artistic" algorithms (Neural-Style Transfer, and Generative models), and show the results on my website.

"WSB" Sentiment Analysis Python

- I scraped the reddit forum "Wall Street Bets" (a forum for amateur option trading which is known for speculative, leveraged trades), and classified whether the daily sentiment on different stocks as either bullish or bearish each day, and compared to actual market returns.

Skills

Strongest Languages: C++/C, OCaml, Python

Technologies: Linux, git, AWS

(Natural) Languages: Fluent in English and French

Research Interests:

- Machine Learning (CV, NLP, Generative Models)
- Information Theory/ Data Encryption
- Probabilistic Analysis of Algorithms
- Quantitative Finance