Rosie Zhao

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EDUCATION

McGill University - GPA: 4.00/4.00   Montreal, QC
Bachelor of Science, Honours Mathematics and Computer Science   *Sept. 2018 - May 2021*

WORK EXPERIENCE

McGill University - Department of Geography   Montreal, QC
NLP Research Assistant   *December 2019 - Present*
- Using natural language processing techniques and network analysis on social media data during extreme weather events in collaboration with Environment and Climate Change Canada (ECCC)
- Developing transformer models that can classify real-time data to visualize on a dashboard

MILA - Montreal Institute for Learning Algorithms   Montreal, QC
AI For Good Summer Lab Fellow   *May 2019 - June 2019*
- Selected as one of 30 women across Canada to attend program consisting of instruction, application, and prototype development of deep learning frameworks
- Launched project conducting research in detecting climate change misinformation in the media

PROJECTS

- **ClimateTimes** - *AI For Good Final Project*   NLP, Web Scraping
  - Scraped over 14000 climate change news articles to apply various NLP algorithms and classify articles as left- or right-leaning as a precursor to detecting climate change misinformation
  - Tested various word embedding inputs (Word2Vec, GloVe, Doc2Vec, LDA) with multiple network architectures (random forest, SVM, CNN, bi-LSTMs) to optimize model performance
- **Neural Style Transfer** - *Introduction to Machine Learning Bootcamp Project*   Pytorch, Flask
  - Manipulated VGG-19 pretrained model with dual loss functions to stylize landscape photos as Studio Ghibli images
  - Trained residual neural network for instantaneous stylization through a Flask web application
- **Dog Classifier App** - *McGill Women in CS Best Graphical Interface Hack*   Keras, Android Studio
  - Finetuned Inception v2 network to classify dog breeds trained on Stanford Dogs Dataset to 90+% accuracy and developed phone application to perform classification in real-time photos

LEADERSHIP EXPERIENCE

- **McGill Artificial Intelligence Society** - *Vice President, Communications*   April 2019 - Present
  - Designed main club and ImplementAI hackathon websites using React JS, Javascript/jQuery, and Emotion
  - Create promotional material for subscriber base of over 2000 students
- **McGill Society of Undergraduate Math Students** - *Vice President, External*   April 2019 - Present
  - Elected to represent math undergraduate student body at Faculty of Science Undergraduate Society meetings
  - Organize internal/outreach events, Women in Math initiatives catered to over 800 students in mathematics
- **McGill Robotics - Autonomous Underwater Vehicle** - *Software Division*   Sept. 2018 - July 2019
  - Programmed live underwater depth mapping and colour detection using OpenCV library

AWARDS

- **Margaret Jane Allan Scholarship - 2019**:
  For one female student at McGill University showing high academic merit in the initial year of the B.Sc. program.
- **Greville Smith Prestige Scholar - 2018**:
  Four-year renewable scholarship based on academic merit, athletics, and extra-curricular involvement.
- **Loran National Scholarship Finalist - 2018**:
  Top 88 of 5,023 applicants across Canada; chosen on the basis of character, service, and leadership

PROGRAMMING SKILLS

- **Languages**: Python, Java, HTML, Javascript, C
  Technologies: React JS, Pytorch, Keras, Pandas, Gensim, Photoshop, Illustrator