

Jizhou Wang

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Education

University of Montreal & Mila Graduate Prof. MSc in Machine Learning	2021 - Present
McGill University Undergraduate BSc in Statistics & Computer Science	2015 - 2019

Projects and Experiences

Convolution vs Attention for Image Classification University of Montreal <ul style="list-style-type: none">Comparitively analysed vision models (ResNet, ViT, ConvNext) based on convolution or attention architectures using a proxy shape-bias metric on out-of-domain stylized imagenet samples to measure generalization performance; with visualization shown here.Developed a framework to evaluate the out-of-domain trained models vs in-domain trained models on external medical classification tasks.	Winter 2022
Hockey Goal Prediction University of Montreal https://github.com/Jawing/ift6758-hockey-blog <ul style="list-style-type: none">Performed exploratory data analysis on NHL play-by-play data by building an interactive 2D shot-heatmap using plotly and ipywidget.Developed a goal prediction service on flask with docker using the top-performing ensemble models (XGboost) based on their ROC-AUC in comet.ml.	Fall 2021
Navigaze Code Jam Hackathon https://devpost.com/software/navigreat-hviz0n <ul style="list-style-type: none">Designed a browser extension that generates a table-of-contents from any webpage, text selection using keywords, key sentences for text summarization.Developed the backend extractive text summarization model using TextRank algorithm with spaCy and Flask.	2019
Toxicity Detection in Text McGill <ul style="list-style-type: none">Compared performances across different models such as CNN, LSTM, lexical using ROC-AUC metrics for detecting toxicity while maximizing group fairness across different identity subgroups.Worked with pre-trained transformer models (BERT, GPT) and word embeddings such as word2vec, GloVe.	2019
SqueezeNet Reproducibility McGill <ul style="list-style-type: none">Analysis of SqueezeNet architecture vs AlexNet on CIFAR-10 by ablation while maintaining the model size reduction intended in SqueezeNet.	2019
Modified MNist Classification McGill <ul style="list-style-type: none">Incrementally tested hyperparameters such as loss functions, optimizers, normalization, dropouts, preprocessing and augmentations (OpenCV) for image classification.Worked with state-of-the-art CNN models (Resnet, EfficientNet) and developed ensembles to further increase classification accuracies.	2019

Irrelevant.ai ImplementAI Hackathon https://devpost.com/software/irrelevant-ai <ul style="list-style-type: none"> Designed a movie recommendation system with a two-stage supervised learning model from Fast.ai using collaborative filtering and an unsupervised learning model on Scikit-learn with K-means clustering. Developed an algorithm that lets the user escape the recommendation feedback loop while maintaining a high predictive user rating. 	2019
Web Designer Centre Saint-Antoine 50+, Montreal, QC http://centrestantoine50plus.org/ <ul style="list-style-type: none"> Created a responsive mobile redesign of the website using jQuery, Bootstrap, and AngularJS and Improved the accessibility and ease of use for elderly clients. 	2017
Software Engineer Intern Microsoft, Beijing, China <ul style="list-style-type: none"> Maintaining web components and websites for new and existing user clients using HTML, CSS, jQuery, Bootstrap, and AngularJS. Prototyped "MicroFriends" a social networking app for interns on android/iOS during the Microsoft Hackathon 	2015

Skills & Interests

Computer Science: Meta-Learning, Continual Learning, Natural Language Processing, Computer Vision.

Software: Pytorch, Sklearn, NLTK, Git, Plotly, Docker, Flask, Aequis, OpenCV, R Studio, MySQL.

Language: English, Mandarin (Fluent), French (Advanced), Japanese, Spanish (Intermediate).

Communication: Active Listener, Compassionate Communicator, Team Spirit, Public Speaking.

Music: [My Youtube Channel](#), Certified Pianist (RCM), Regional champion (WSTMA). Performance on stage (Camerata Musica 2009). Amateur Jazz composer and rhythm game fanatic.

Sports: Cross country and table tennis regional competitor. Passionate figure skater and dancer.

Others: Enthusiast in culinary arts, digital art, photography, psychology and philosophy.