# Yifan(Andy) Bai

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## EDUCATION

- **Université de Montréal, Mila – Quebec AI Institute**  Montreal, QC, Canada
  *Master's in Computer Science, Machine Learning/AI/Data Science*  *September 2019 – Present*

- **McGill University**  Montreal, QC, Canada
  *Bachelor of Engineering, Internship Program, Minor Computer Science*  *September 2013 – May 2019*

## EXPERIENCE

- **McGill University**  Montreal, QC, Canada
  *Casual Web Developer*  *January 2020 – Present*
  - Developed an information dashboard for (Quebec SPOR SUPPORT Unit initiatives) using MERN stack.

- **HEC Montreal**  Montreal, QC, Canada
  *Machine Learning Research Student*  *January – April 2020*
  - Analysis of post popularity pattern on social media platforms for forecasting future popularity, engagement level and impact on sales volume in gaming industry. Built seq2seq language models for post suggestion and creation.

- **McGill University**  Montreal, QC, Canada
  *Teaching Assistant, COMP 206 - Intro to Software Engineering*  *January - April 2019*
  - Graded courseworks and exam for over 30 students and provided constructive feedback.
  - Tutored students during weekly office hours and pre-exam review sessions.

- **Pratt & Whitney Canada**  Montreal, QC, Canada
  *Full-stack Web Developer Intern*  *September – December 2018*
  - Developed a visual workflow/progress tracking web app for Product Life Management (PLM).
  - Frontend using VueJS and backend using Java Play to deploy RESTFul API for controlling SQL database.
  - Interfaced with various teams including project engineers, product owner, stakeholders and lead developer.
  - Improved workflow using Agile framework and methods such as Kanban and Scrum.

- **Pratt & Whitney Canada**  Montreal, QC, Canada
  *Engine Diagnostic Software Development Intern*  *May – August 2018*
  - Developed and validated engineering requirement documents for in-house software packages.
  - Enhanced testing and debugging processes using Batch command-line tools.
  - Drafted technical documentations for in-house software packages and guidelines for software maintenance.

- **McGill University**  Montreal, QC, Canada
  *Lead Web Developer, McGill MakersHub*  *January – April 2018*
  - Frontend using Bootstrap and JavaScript for slideshows, Google Maps.
  - Drafted and integrated media contents into the webpage.
  - Configured hosting on Google Cloud Platform.
  - Led presentations in internal reviews with faculty members.

- **TRU Simulation + Training**  Montreal, QC, Canada
  *Simulator Qualification Intern*  *January - April 2018*
  - Carried out FSTD qualification test runs on test stations and full simulators.
  - Wrote and reviewed Qualification Test Guide (QTG) documentations release 2.0 for A320.
  - Recompiled and updated QTG project tracking documents to keep the information up-to-date.

- **CAE Inc.,** Ottawa, ON, Canada
  *System Software Specialist Intern* *January – August 2017*
    - Provided technical support to users via online ticketing system, processed daily licensing/documentation requests.
    - Improved functionalities for users by customized SQL scripts, fleet configurations in XML, and software bug fixes.
    - Moderated ticketing and user database on WordPress; cleared over 90 backlog in the first 3 weeks of work.
    - Prepared test cases for software new release demo with visiting customers.

- **Polytechnique Montréal** Montreal, QC, Canada
  *Research Intern* *May – August 2016*
    - Carried out wind tunnel experiments on prototype airfoils, data gathered contributed to doctoral thesis.
    - Performed modal and stress FEA simulation using ANSYS on testing equipment for validation.
    - Performed weekly lab 3D printer servicing, designed and printed test rig components using CATIA V5.

- **McGill University** Montreal, QC, Canada
  *Teaching Assistant, MATH 314 - Advanced Calculus* *January – April 2016*
    - Graded over 30 students for 5 assignments; led exam invigilation team of 3.
    - Held bi-weekly meetings with professor, providing feedback based on students' performance and concerns.

## Projects

- **Marketplace Web Application**
  *React(Hooks, Context API), ExpressJS, NodeJS, MongoDB, Stripe*

- **Kaggle Competition - Reddit Text Classification**
  *Machine Learning - Python (SKlearn, Tensorflow), 15/103 in class*
    - Implemented an RNN with LSTM.

- **Class Tournament - Pentago Swap**
  *AI Game Playing Agent - Java, 15/289 in class*
    - Boardgame player using A-B Pruning and Minimax algorithm.

- **Pictionary**
  *Multi-player Web Game - AWS, PHP, SQLite3*

- **ADML Website**
  *Web Design - Bootstrap, HTML5/CSS, Javascript*

## Programming & Skills

- **Scripting**: Bash, JavaScript(React, Vue, Express, Node, D3JS), Python(TensorFlow, PyTorch, Sklearn)

- **Programming**: C/C++, Java(OOP, Design Patterns, Play Framework), HTML5/CSS

- **Platforms and Tools**: AWS, XAMPP, Heroku, Google Cloud, SQL, MongoDB

- **Office Suites**: LaTex, MS PowerPoint/Word/Excel/Visio, WordPress

## Languages

- **English**: Proficient
- **Mandarin**: Native
- **French**: Intermediate