Hong Kun **Tian**

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Skills

Programming Languages

Python, Java, C/C++, C#, Javascript, OCaml, MIPS Assembly Language, Bash, PostgreSQL

Libraries & Frameworks

scikit-learn, PyTorch, Matplotlib, NumPy, Pandas, .NET, React, Gatsby, HTML, CSS, Sass, Node.js

Tools & Platforms

Git, Netlify, Azure DevOps, LATEX

Languages

English, French, Mandarin

Completed Courses

- Algorithms & Data Structures
- Applied Machine Learning
- Database Systems
- Discrete Structures
- Fundamentals of Computer Graphics
- Linear Algebra
- Numerical Computing
- Operating Systems
- Probability
- Programming Languages & Paradigms (functional programming)
- Software Design
- Statistics

Experience

UMAknow *Montreal, Canada*

Software Development Intern *Jun. 2019 – Aug. 2019*

C#, .NET, Visual Studio, HTML5, CSS3, Javascript, Azure DevOps

- Developed a server-side REST API for Cloudockit, a cloud environment diagram generator for AWS, Azure and GCP, using .NET Framework, through which end consumers can trigger document generation.
- Built an interactive page using HTML, CSS, Javascript through which end consumers can visualize and interact with the API's endpoints.
- Developed automated acceptance tests that detected irregularities and unwanted changes within template documents and generated documents using Aspose file management APIs, improving the robustness of code deployment.
- Participated in various Agile Scrum methodologies.

Projects

Projects @ McGill Applied Machine Learning Course *Jan. 2020 – Ongoing*

Python, scikit-learn, Matplotlib, Seaborn, NumPy, Pandas

- **Project 1:** Implemented Logistic Regression and Naive Bayes to classify targets from datasets acquired from UCI Machine Learning Repository.
  - Built Logistic Regression and Naïve Bayes models from the ground up.
  - Investigated feature engineering techniques on datasets to improve performance.
  - Conducted experiments, such as testing differing learning rates, measuring their corresponding accuracies as a function of the size of the training size.
- **Project 2:** Investigated various multi-class classification models on two textual datasets
  - Preprocessed datasets by vectorizing terms and applying TFIDF weighing.
  - Investigated performance of Logistic Regression, Decision Tree, Support Vector Machine, AdaBoost, and Random Forest models from scikit-learn on both datasets.
  - Performed hyperparameter tuning using randomized search with cross validation to achieve best possible performance for each model.

Personal Portfolio Website @ www.hongkuntian.com *Jan. 2020 – Ongoing*

React, Gatsby, Sass, Netlify, GraphQL

MindBook @ ConUHacks 2020 *Jan. 2020*

React, CSS3, IBM Tone Analyzer, Node.js, Firebase

Summary: Journal logging web app that performs sentiment analysis and provides recommended activities based on the predictions.
- Built the client-side UI using React and CSS.
- Hooked up Firebase to our Node.js backend to save journal entries from users.
- Implemented IBM Tone Analyzer API and business logic to provide suggestions to users.

TravelCC @ Hack The North 2019 *Sep. 2019*

Java, Firebase API, XE Currency Data API

Summary: Automatic foreign currency conversions through a smartphone's camera.
- Implemented API calls to Firebase API and XE Currency Data API.

NLPure @ McGill CodeJam 2018 – First Place Overall *Nov. 2018*

Keras, scikit-learn, React, Node.js

Summary: Text toxicity detection built using Keras.

Education

McGill University *Montreal, Canada*

Bachelor of Science – Honours Computer Science *Sep. 2018 – Exp. May 2021*

Cumulative GPA: 3.64/4.00

Marianopolis College *Montreal, Canada*

Diploma of College Studies – Pure and Applied Sciences *Sep. 2016 – Jun. 2018*

Global R Score: 35.662
- Dean's List (All semesters): Overall grade average of 85% and above and completion of courses required by the program for that semester.