

Ben Willetts

Mobile: +1 (514)-638-0904 **E-mail:** ben.d.willetts@gmail.com **Nationality:** Canadian **D.O.B:** 04/09/96
Personal Website: benwilletts.me **LinkedIn:** [linkedin.com/in/benwilletts1](https://www.linkedin.com/in/benwilletts1) **Github:** github.com/bendwilletts

Education

McGill University | *Montréal, Canada* **September 2014 - Present**
• Bachelor of Software Engineering
• Undergraduate degree expected in June 2019
• Teaching Assistant for COMP302: Programming Languages and Paradigms in Fall 2018
Canadian International School of Hong Kong | *Hong Kong SAR* **August 2001 - May 2014**
• International Baccalaureate Diploma - OSSD Diploma

Work Experience

McGill Clinical & Health Informatics | *Software Developer Intern* | mchi.mcgill.ca **May 2018 - August 2018**
• Developed interactive data-driven features with JavaScript for a health informatics web application *Montréal, Canada*
• Led the creation of an API to facilitate external server queries for R developers and scientists
• Involved in a Scrum management system for agile development; making efficient use of JIRA software
• Collaborated with leading researchers in Epidemiology and Biostatistics to fine-tune software requirements
Gammon Construction Limited | *Information Management Services Intern* **May 2017 - August 2017**
• Designed an enterprise application to support intercompany workflow and transactions *Hong Kong SAR*
• Created modern dynamic user interfaces with Angular JS and managed the back-end application with Java/Spring
• Communicated application requirements with E&M engineering experts to sustain feature driven programming
• Experienced an enterprise development format, managing changes through Apache Subversion
TOM Condos | *Data Management Administrator* | *Summer Intern* | *Part-time* **May 2016 - April 2017**
• Managed client data for a luxury condo development *Montréal, Canada*
• Proposed and implemented online advertising solutions for real estate developments

Other Relevant Experience

UCSF-McGill-PeriGen Research Project | *Project Member* | *Advisor: Prof. Robert E. Kearney* **January 2018 - Present**
Software prediction algorithm to determine the likelihood of HIE in fetuses *Montréal, Canada*
• Analyzed fetal monitoring (EFM) signals to identify features that are predictive of HIE
• Combined clinical and EFM data using machine learning methods to develop a perinatal HIE predictor
• Completed a grant proposal with predictive results to submit to National Institutes of Health (NIH)
COMP551 Kaggle Competition | *Project Member* **March 2018**
Machine learning model accuracy competition using a modified MNIST dataset *Montréal, Canada*
• Trained a model that classifies images containing multiple digits based on the digit with the largest pixel size
• Evaluated a baseline Linear SVC model along with feed forward and convolutional neural networks
• Applied feature extraction methods to the dataset, improving test accuracy to 96.7%
CodeJam: Data Dive | *Hackathon Winner of Overall First Place Prize* | *Devpost: [bit.ly/walksafeny](https://devpost.com/blog/2017/11/14/walksafeny/)* **November 2017**
Web mapping application that provides safest route to destination *Montréal, Canada*
• Preprocessed NYC vehicle accident data into an incident frequency heat map using k-means clustering
• Built a route suggestion engine to consider the safest walking route using the Google Maps API.
• Implemented various software features to enhance functionality, usability, and user experience
• Presented our software demo to Amazon software engineers, competing with over eighty student teams

Languages & Technical Skills

English: Fluent written and spoken | **Mandarin:** Adequate written and spoken

Programming Languages

- Java, Python, C, R
- HTML/CSS, JavaScript
- OCaml, PHP, SQL
- UNIX Shell Scripting

Software Tools

- AngularJS, React.js/Native
- Hibernate, Flask, Django
- sklearn, TensorFlow, Keras
- PyTorch, Jupyter, cv2, Git

Relevant Knowledge

- Full Stack Web Development
- Agile Methodologies
- Deep Learning
- Applied Machine Learning

Dedicated Hobbies

- Basketball, volleyball, and golf
- Long distance running/hiking charity events
- Music production and classical piano
- The Office and Rick and Morty