Henry Fung

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Highlights

Python: pandas, NumPy, scikit-learn, Matplotlib, Seaborn, nltk, Gensim, Tensorflow
R: Tidyverse, ggplot2, caret, glmnet, tree
Statistical Inference: Regression analysis (cross-sectional, time-series, and panel data), hypothesis testing
Machine Learning: Multiple/Logistic Regression, Random Forest, Gradient Boosting, Naïve Bayes, KNN
Deep Learning: Neural Network Model, CNN
Other: SQL, STATA, MATLAB, C/C++, LaTeX
Languages: English (native), Cantonese Chinese (native), Mandarin Chinese (social), French (basic)
Legal Status: Canadian Citizen on OPT, TN-Visa possible

Education

Johns Hopkins University
MA., International Economics and Quantitative Methods, GPA 3.9/4.0   *2018-2020*
- Johns Hopkins University Dean's Scholarship (2018-2020)
- Paul H. Nitze Fellowship (2019-2020)

McGill University
BA., Economics, Minor in Mathematics, summa cum laude, GPA 3.9/4.0   *2015-2018*
- Cherry Prize in Economics (2018)

Carleton University
MSc., Mechanical Engineering   *2008-2010*
- Thesis: Modelling, Simulation, and Control of a Bipedal Walking Robot
BEng., Aerospace Engineering   *2003-2008*
- Project: Modelling Human Abdomen Palpation for a Patient Simulator

Experience

Logapps, LLC   **Falls Church, VA**
Machine Learning Engineer   *5/2019 – Present*

- Developed a Convolution Neural Network model with word embeddings to classify software requirements from three different industries (using nltk, genism, tensorflow and scikit-learn).
- Processed software requirement texts using Python (nltk and spaCy) and identified semantically similar requirements using pre-trained word embeddings.

Johns Hopkins University   **Washington, DC**
School of Advanced International Studies (SAIS)
Data Analyst/Graduate Researcher   *9/2018 – Present*

- Performed data wrangling, cleaning, exploratory data analysis, and feature learning with elastic net regularization on seven large public employee survey datasets (sample size ranges from 4000 to 400,000).
- Specified linear regression models to establish associations between 30 management practices and motivation to verify a priori hypotheses on the effects of supportive management practices on motivation.

Government of Canada   **Montreal, Canada**
Operations Research Specialist   *5/2018 – 8/2018*

- Wrangled and cleaned government employee data (3 million observations) and developed a panel regression model to investigate the effects of geographical location, employee experience, and change management on employee performance.
- Derived operational insights from the regression analysis and presented recommendations (using data visualizations) to managers and non-technical team members.

Textron Inc.   **Montreal, Canada**
Avionics Systems Engineer   *6/2015 – 8/2016*

- Successfully developed simulated models (in C++) for the Airbus A350 Global Aircraft Position System (GAP) and Flight Control Unit (FCU) based on Airbus technical documents (ICD, and SDD).
- Worked collaboratively with test pilots on the design and implementation of an automated validation process for flight simulators that resulted in the reduction of the validation phase of the project by 80 hours.
- Organized and led discussions with aircraft equipment vendors (Honeywell and Thales) on avionics interface issues in the simulator, leading to the resolution of 5 critical simulator issues within the project deadline.

CAE Inc.   **Montreal, Canada**
Autopilot Software Specialist/Project Engineer   *5/2011 – 5/2015*

- Responsible for the design requirement reviews, software development and testing of simulated autopilot models for Boeing flight simulators (B747 and B787).
- Served as a customer-facing project engineer in five different countries (Norway, Denmark, India, China, and Australia) to support the qualification efforts of simulators and secure customer acceptance.
- Developed realistic work plans and led constructive meetings with engineering teams (5-10 members) on complex simulation issues, leading to the qualification of 5 flight simulators with over 95% of the software issues resolved.