FINBARR TIMBERS

Github: github.com/finbarrtimbers   (780) 729 8784

Employment

Darkhorse Analytics   Edmonton, AB
Data Scientist   July 2015 —

- Found trade opportunities representing a 10% increase in the dollar value of exports for Canadian province using a machine learning model.
- Wrote Python code that cleaned & process 120 GB of raw data.
- Developed a ML model for client that predicted most costly clients with 60% more accuracy than baseline (31% -> 50%).
- Lead small team to develop ML model for charity that could correctly identify 55% of major donors (baseline was 3%- major increase).

Various Clients   Edmonton, AB
Consultant   August 2014 —

- Working with https://zipstory.com/ to implement a) a recommender system and b) a submission parser.
- Built latent semantic indexing & clustering library in Node.js for https://perspica.city/. Identifies top 20 keywords in 0.3s using a singular value decomposition, and clusters 200 documents using K-means in 0.7s.
- Lead a two person team to build an iOS app using React for a small engineering firm.
- Developed scraping programs for client enabling them to analyse millions of records in a central database.

University of Alberta   Edmonton, AB
Instructor   January 2017 —

- Taught 20 senior business undergraduates and 4 MBA students Monte Carlo simulation (OM 422/622).

University of Alberta   Edmonton, AB
Undergraduate Student Researcher   April — August 2013

- Awarded a NSERC USRA grant to study applied stochastic analysis under Professor Christoph Frei.

Education

London School of Economics   2014 — 2015
M. Sc. Econometrics & Mathematical Economics

University of Alberta   2010 — 2014
B. Sc. (*Hons*) Mathematics & Economics

Publications

1. Aggarwal, K., Timbers, F., Rutgers, T., Hindle, A., Greiner, R., and Stroulia, E. "Detecting Duplicate Bug Reports using a Hierarchy of Domain Knowledge Contexts" Journal of Software: Evolution and Process, August 2016.
2. Aggarwal, K., Rutgers, T., Timbers, F., Hindle, A., Greiner, R., and Stroulia, E. "Detecting Duplicate Bug Reports with Software Engineering Domain Knowledge." 22nd IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER).

Projects

- *NIPS 2017: Defene Against Adversarial Attack*: Built project for 2017 NIPS competition track that defends against adversarial perturbations. Placed 13 out of 39 submissions.
- *www.BugDedupe.com*: Lead small team to develop a SaaS app based around machine learning. Users can analyse their Github Issues to find and merge duplicates easily.
- *Oil Price Forecasting*: Worked with a team of graduate students at the University of Alberta to develop an oil price forecast using a RNN. Beat state of the art by 5%.
- Minor open source contributions to Tensorflow, Incanter.

Skills

- Languages: Python (strong), R (strong), SQL (strong), C++ (prior experience), Javascript (prior experience).
- Frameworks: Tensorflow, Scikit-Learn, Keras, PyTorch.
- Tools: Docker, Kubernetes, MySQL, SQL Server, git, UNIX command line utilities, PDB, GDB, virtualenv.