Athanasse Zafirov

✉ athanasse@ad.ucla.edu   ✎ Personal Website   in LinkedIn   ○ Github

⚑ European Union, Canada, Panama   📞 +1 310 733 0524

Profile

- Interests: Data Science, Machine Learning, Forecasting.
- Experienced in deep learning, decision trees, ensemble methods, NLP, reinforcement learning.
- Years of research, coding (Python, R) and investment industry experience.

Education

PhD, Anderson School of Management,
University of California, Los Angeles (UCLA)
2018 – 2022

Master's of Science, Applied Economics,
HEC Montréal
2012 – 2015

Bachelor's of Commerce, Finance,
Concordia University
2008 – 2011

Diploma of College Studies, Computer Science,
Dawson College
2005 – 2008

Publications — Authorships

A Comprehensive Look at the Empirical Performance of Equity Premium Prediction II,
R&R at The Review of Financial Studies ⧉

FREEtree: A Tree-based Approach for High Dimensional Longitudinal Data With Correlated Features, *arXiv — Statistics: Machine Learning* ⧉

Improving Inference with Machine Learning: Application to CEO Turnover,
Forthcoming dissertation

Skills

Python • R • SQL • Java • Stata • Excel

Web Scrapping • NLP • Deep Learning

Professional Experience

Analyst, *Letko Brosseau (private fund, AUM: $27B)*
2014 – 2016 | Montreal, Canada
- Forecasting and modeling: emerging market economics, energy markets, corporate profits.
- Data organization, presentation and visualization.

Intern — Quantitative Analysis,
CDPQ - Québec Public Pension Plans (AUM: $286B)
2013 | Montreal, Canada
- Developed a PCA Autoregression tool with GUI for forecasting and monitoring inflationary pressures.

Intern — Macroeconomic Analysis,
CDPQ - Québec Public Pension Plans (AUM: $286B)
2013 | Montreal, Canada
- Forecasting and modeling: unemployment, gross domestic product, demographics, productivity.

Intern — Capital Markets, Portfolio Strategy,
Scotiabank
2010 – 2011 | Montreal, Canada
- Financial market data organization, interpretation, presentation and visualization.

Intern — Trading Floor,
Healthcare of Ontario Pension Plan (AUM: $114B)
2009 | Toronto, Canada
- Software tool development for trading floor operators.

Intern — Software Development, *Centre d'Etude et de Développement de l'Informatique Internship*
2008 | Lyon, France

⌗ Machine Learning Projects

Earnings Sentiment Analysis: A Comparison of Transfer Learning Methods (BERT, ALBERT, XLNet), *Natural Language Processing* ⎗

PropCast— Deep Inception-Convolutional LSTM Networks for Forecasting Spatio-Temporal Transitions in Property Index Heatmaps, *Deep Learning* ⎗

FREEtree: Tree Method for High Dimensional Longitudinal Data, *CRAN R package creator* ⎗

📖 Publications — Research Assistance

Minimum Wage and Individual Worker Productivity: Evidence from a Large US Retailer, *Forthcoming, Journal of Political Economy* ⎗
- Analysis of minimum wage changes on store and employee outcomes of large US retailer (~5,000 stores). Linking together HR data, performance, turnover, scheduling, payments, geography, revenues and web scraping instrumental variables.

Government Debt Management The Long and the Short of It, *Published, The Review of Economic Studies* ⎗
- Analysis and empirical work on US debt.

Unemployment insurance with limited commitment wage contracts and savings, *Published, BE Journal of Macroeconomics* ⎗
- Researched conditions of unemployment benefits in the US.

Household Search and the Aggregate Labor Market, *Published, The Review of Economic Studies* ⎗
- Research and statistical analysis using US CPS household data.

🅰 Languages

English

French

Bulgarian

Spanish
(B1)

📈 Machine Learning PhD Classes

ENGR C247: Neural Networks & Deep Learning, *UCLA Engineering Department*
- Grade: A

BIOSTAT 273: Classification and Regression Trees (CART) and Other Algorithms, *UCLA Biostatistics Department*
- Grade: A+

COM SCI 263: Natural Language Processing, *UCLA Computer Science Department*
- Grade: A

STATS 232C: Cognitive Artificial Intelligence (Reinforcement Learning), *UCLA Statistics Department*
- Grade: A+

🎓 Teaching Assistance

MGMT 439: Tools and Analysis for Business Strategy (introduction to data science), *Graduate level (UCLA)*
- Created class assignments and solutions.

MGMT 264A: Market Research (regression, dimensionality reduction and clustering techniques), *Graduate level (UCLA)*
- Created class assignments and solutions.

MGMT 403: Financial Accounting, *Undergraduate level (UCLA)*

ECO 680109: Applied Econometrics, *Graduate level (HEC Montréal)*

ECO 600112A: Economic & Corporate Organization, *Graduate level (HEC Montréal)*

ECO 380607: Introduction to Econometrics, *Undergraduate level (HEC Montréal)*

🏅 Awards

Nominated - Best Master's Thesis (2015)

Academic Excellence Award (2012 & 2013)
Highest average of the Master's program

Academic Excellence Award (2007)
Highest average of the Computer Science program