## Jason Zafirov, PhD



• United Arab Emirates, Canada, EU, Panama

## **<u></u> Education**

## PhD, Anderson School of Management,

University of California, Los Angeles (UCLA) 2018 – 2023

## Master's of Science, Applied Economics,

Department of Applied Economics, HEC Montréal 2012 – 2015

### Bachelor's of Commerce, Finance,

John Molson School of Business, 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, The

Review of Financial Studies (Top 5 Journal in field) □

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, Dissertation ☑

**Private Market Portfolio Forecasting and Optimization Using Machine Learning,** *United States Patent and Trademark Office (Provisional Patent)* 

## Skills

Python • R • SQL • Web Scraping • NNs •

NLP / LLMs • PySpark • Foundry • R Shiny •

LangChain • XGBoost • LightGBM • PySpark

## **➡** Professional Experience

#### ML Engineer — AI Lead,

Integrated Data Intelligence Ltd (Startup)

2023 - present | Abu Dhabi, United Arab Emirates

 Startup success forecasting using different AI algorithms, including gradient boost based and NLP based methods.

**Data Scientist,** *EPAM (NYSE: EPAM, MktCap: \$20B)* 2022 – 2023 | Remote

 Consultant: Time series forecasting investor behavior using a variety of machine learning algorithms. Event categorization, article clustering and sentiment analysis through NLP.

Analyst, Letko Brosseau (private fund, AUM: \$27B)

2014 – 2016 | Montreal, Canada

• Forecasting and modeling: emerging market economics, energy markets, corporate profits.

#### Intern — Quantitative Analysis,

CDPQ - Québec Public Pension Plans (AUM: \$286B) 2013 | Montreal, Canada

• Built PCA autoregression tool to forecast inflation.

#### 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, Scotiabank

2010 - 2011 | Montreal, Canada

• Data organization, interpretation & visualization.

#### Intern — Trading Floor,

Healthcare of Ontario Pension Plan (AUM: \$114B) 2009 | Toronto, Canada

Software development for trading floor operators.

Intern — Software Development, CEDIB

2008 | Lyon, France

## Professional Training

## Forecasting with Machine Learning, ML Course ☑

 Time-series forecasting with XGBoost / LightGBM: data wrangling, model tuning and evaluation.

## Machine Learning Projects

**pandas-ai,** *Contributor* ☑ Library that adds Generative AI capabilities to pandas.

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

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 ☑

## </> Publications — Research Assistance

# Minimum Wage and Individual Worker Productivity: Evidence from a Large US Retailer,

Published, Journal of Political Economy  $\ \ \, \boxdot$ 

 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 variables.

# Government Debt Management: The Long and the Short of It,

Published, The Review of Economic Studies ☑

• Statistical analysis of US debt dynamics.

# Unemployment Insurance with Limited Commitment Wage Contracts and Savings,

Published, BE Journal of Macroeconomics ☑

Researched conditions of unemployment benefits.

## Household Search and the Aggregate Labor Market,

Published, The Review of Economic Studies ☑

• Statistical analysis using US CPS household data.

#### **Counterproductive Worker Behavior After a Pay**

**Cut,** Published, Journal of the European Economic Association ☑

Difference-in-difference regression modeling of how workers reacted to a pay cut in a sales call-center.

## Awards

**UCLA Anderson doctoral fellowship,** \$140,000

FRQSC - Provincial doctoral scholarship, \$84,000

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.

**\$2DS,** Europe's largest data science training bootcamp 2023 | London, United Kingdom

 Intensive, industry-linked project-based training for top PhD students. ☑

## Kenneth Woods Portfolio Management Program,

John Molson School of Business, Concordia University 2009 – 2012 | Montreal, Canada

• Hands-on training in investment management working with a real-life portfolio of over \$5 million.

## **E** Teaching Assistance

MGMT 439: Tools and Analysis for Business Strategy (introduction to data science), *Graduate level (UCLA)* 

MGMT 264A: Market Research (regression, dimensionality reduction and clustering),

Graduate level (UCLA)

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)

Personal Tutor,

Economics, Computer Science, Data Science.

## Machine Learning PhD Classes

**ENGR C247: Neural Networks & Deep Learning,** 

UCLA Engineering Department, Grade: A

**BIOSTAT 273: Classification and Regression Trees,** 

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+

### **A** Languages

#### **English**

(Native)

**French** 

(Fluent)

#### **Bulgarian**

(Fluent)