

Matthew Senick

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EDUCATION

University of Toronto

Aug 2021 - May 2022

Masters of Economics

Toronto, ON

- Relevant Coursework: Economic Applications of Machine Learning (In Progress), Statistical Methods for Machine Learning and Data Mining (In Progress), Econometrics (A-)

University of Saskatchewan

Sept 2017 - May 2021

Double Honours Bachelor in Computer Science and Economics

Saskatoon, SK

- GPA: 3.87
- Awards: Lewis C. Gray Prize in Economics, Popoff Scholarship in Economics, Dean's Honour List, University of Saskatchewan Continuing Scholarship, NSERC Undergraduate Research Award, Greystone Entrance Award
- Relevant Coursework: Deep Learning (89%), Machines & Algorithms (94%), Simulation Principles (91%)

EXPERIENCE

Research Assistant (Economics)

Dec 2021 - Present

University of Toronto

Toronto, ON

- Built supervised and unsupervised web-scraping NLP-based models to quantify amenity preference sentiment amongst labour force actors (presented at ASSA 2022)
- Cleaned and prepared a multitude of research datasets for ongoing labour economics research

Teaching Assistant (Economics)

Aug 2021 - May 2022

University of Toronto

Toronto, ON

- Led students in "Data Tools for Economists" and "Introduction to Data Analysis and Applied Econometrics"
- Obtained a 96% satisfaction rate in tutorial sessions for students learning data manipulation/analysis techniques

Development and Database Manager (BI and Automation)

May - Sep 2020, May - Aug 2021

Affinity Credit Union

Saskatoon, SK

- Led a project to clean up reporting server standards and create tangible reports regarding data server usage
- Enhanced membership gain and loss reports aiding in back-office analysis and improved front-line efficiency
- Constructed end-user reports and developed ETL pipelines

Intern Market Analyst (Member Experience)

Jan - Apr 2020

Affinity Credit Union

Saskatoon, SK

- Built a decision tree model to learn from consumer product tendencies based on collected biographic data points
- Utilized qualitative research techniques to predict market outcomes for financial products and digital advice tools

Research Assistant (Computer Science)

May - Sep 2019

University of Saskatchewan

Saskatoon, SK

- Aided in implementing and testing machine learning solutions for 'semantic code clone' detection research
- Prepared, manipulated, and managed extensive databases to be fed to machine learning and analytic algorithms

ACADEMIC PAPERS

University of Toronto

Bearish or Bullish? A Predictive Sentiment-Weighted Attention Analysis of the Wall Street Journal

- Web-scraped, cleaned, and tokenized a novel dataset of nearly 100,000 Wall Street Journal articles
- Constructed an LDA model to build time-series topic attention weighted by the RoBERTa sentiment transformer
- Applied Lasso regression to indicate the most informative topics over time and predicted market index fluctuations

TECHNICAL SKILLS

Skills: Machine Learning, NLP, Web Scraping, Econometric Analysis, Research Techniques

Programming Languages: Python, SQL, R, Stata, C, Java, Scala, Visual Basic, JavaScript, C++, Git

Libraries: TensorFlow, Scikit-learn, Pytorch, Pandas, Selenium, Gensim, NLTK

Programs: Anylogic, Weka, SSMS/SSRS/SSIS, Jupyter

Interests: Golf, Hockey, Chess