

# Matthew Senick

## EXPERIENCE

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- Senior Data Analyst (Product Growth)** Mar 2024 - Present  
*7shifts* *Saskatoon, SK*
- Set best practices within the team for analytical engineering and owned analytical engineering from a number of disparate data sources including Ada, Appcues, Marketo, and Zendesk
  - Applied Long-Short Term Memory Neural Networks to project customer lifetime value for existing customers, and predict customer lifetime value for new customers
  - Used Prefix Tree Spanning to map out common patterns in the action journeys taken by customers during their initial trial period
- Data Analyst (Product Growth)** Jun 2023 - Feb 2024  
*7shifts* *Saskatoon, SK*
- Drove ML engineering in the deployment of the company's first customer churn prediction model, and supported the rollout of predictions to the Sales team
  - Deployed a data ingestion script via Airflow to collect Google Places information on provided customer locations with an 80% location match rate
  - Completely refactored and migrated DBT analytic engineering layers to Snowflake for Stripe billing, impacting over \$80 million in customer transaction data
  - Genetically optimized a Hidden Markov Model which leveraged over 9 million customer trial actions with the intent of uncovering causal impact of actions to customer purchase decisions
  - Owner of A/B test analysis, including but not limited to the following product areas: pricing page, plan trials, and the initial trial experience
- Lecturer (Economics)** Sep 2022 - Present  
*University of Saskatchewan* *Saskatoon, SK*
- Nominated for the Undergraduate Student Society Teaching Excellence Award
  - Achieved a 100% satisfaction rate on "Overall Teaching Effectiveness" during my first semester, with 46% of students rating my teaching effectiveness amongst the top 5% of university instructors
- Business Process Data Scientist (Strategic Projects)** Jul 2022 - Jun 2023  
*StandardAero* *Winnipeg, MB*
- Spearheaded development of a Monte Carlo simulation that assessed risk distributions for quoting incoming engine contracts frequently exceeding \$2 million, impacting 1000+ employees and recognized with an intracompany award
  - Developed cross-functional Discrete Event Simulations and dashboards to optimize production engineering metrics, enabling key decision makers to compare the forecasted impact of workflow and labour composition changes
- Research Assistant (Economics)** Dec 2021 - May 2022  
*University of Toronto* *Toronto, ON*
- Built supervised and unsupervised web-scraping NLP models to quantify amenity preference sentiment amongst labour force actors which were presented at ASSA 2022
- 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 data analysis project regarding reporting server standards and create tangible reports regarding data usage
- Intern Market Analyst (Member Experience)** Jan 2020 - Apr 2020  
*Affinity Credit Union* *Saskatoon, SK*
- Built a decision tree model to predict consumer product tendencies based on thousands of biographic data points
- Research Assistant (Computer Science)** May 2019 - Sep 2019  
*University of Saskatchewan* *Saskatoon, SK*
- Aided in implementing and testing machine learning solutions for 'semantic code clone' detection research

## EDUCATION

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### University of Toronto

Aug 2021 - May 2022

*Master of Economics*

*Toronto, ON*

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

### University of Saskatchewan

Sept 2017 - May 2021

*Double Honours Bachelor in Economics and Computer Science*

*Saskatoon, SK*

- cGPA: 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: Introduction to Empirical Economics (100%), Deep Learning (87%), Machines & Algorithms (94%), Simulation Principles (91%)

## TECHNICAL SKILLS

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**Skills:** Machine Learning, Simulation, Econometric Analysis, Research Techniques, A/B Testing, Analytical Engineering

**Programming Languages:** Python, SQL, R, DBT, Stata, C, Java, JavaScript, C++

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

**Programs/Tools:** DBT, Git, Tableau, Power BI, Anylogic, Weka, SQL Server, Jupyter, iGrafX, Salesforce, Snowflake, Metabase, Mixpanel, Growthbook

**Hobbies:** Golf, Hockey, Chess, Freelance Web-Development