

JIRI STODULKA

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SOFTWARE & SKILLS

AI/ML: Machine learning (Scikit-learn), Deep Learning (Keras, PyTorch), recommender system, time-series.

Visualization: data analysis (Matplotlib, Seaborn), dashboard (Plotly), geospatial data (Folium).

Cloud Service: AWS (SageMaker, Elastic Beanstalk, EC2, S3), IBM Watson.

WORK HISTORY

Data Scientist, STAGEPAGE Inc. 02/2020 – 06/2020 (Toronto)

- Built recommender engine, while using hybrid approaches scoring as high as 0.4 Mean Average Precision, to help customers find the best fit shows to attend.
- Designed easy-debugging features in clean Python scripts that proceeded to deployment.
- Solved the cold-start problem and engineered features for users and shows. Performed model optimization to ensure the least loss error.
- Designed neat GUI and deployed model (with Flask) to enable domain experts to validate it.

Data Scientist, BECLOUDREADY Inc. 12/2019 – 04/2020 (Toronto)

- Delivered a solution around low volume of time-series data for demand forecasting of 15,000 SKUs: applied ensemble methods, e.g. random forest regressor and deep learning (Keras), on engineered and clustered sales segments. Forecasted demand for these items in inventory while reducing old forecasting error of 25% to 6%.
- Scaled the company's proposition value: engineered 300 interaction features from initially three available variables. Leveraged ML techniques to select the most important features accounting for 85% R^2 and 6% forecasting error.

Customer Facing Data Scientist, SALESCHOICE Inc. 03/2019 – 11/2019 (Toronto)

- Utilized IBM Watson and Natural Language (NLP) toolkits for R&D. Used linguistic analytics to infer individual personality characteristics from digital communication.
- Coordinated with IBM on OCE grant R&D Project.
- Launched enterprise sales cycles with major clients (e.g. Stripe, AdRoll).
- Created a playbook to communicate the value of AI to these and other clients.

Data Analyst, GEMINI EYE CLINIC 09/2016 – 07/2018 (Prague)

- Initiated the idea of implementing a franchise model for the clinic. Performed background research (including traveling to the Netherlands to talk to franchising expert) and built ML models to predict the effect of the strategy on profits.
- Helped put in place the new franchising model, which ultimately increased revenues by 15%.
- Worked with large datasets, e.g. wrote SQL queries in R Studio (DBI), utilized tidyverse.

VOLUNTEERING

Stream Owner and Steering Committee Member, Aggregate Intellect Inc. 06/2020 – present

- Coordinating with leading researchers and authors to present their work relating to ML in economics.
- Facilitated discussions on YouTube channel with more than 10,000 subscribers.
- Presented a spotlight talk on ML in Behavioral Economics.

PORTFOLIO (Projects and GitHub: www.jiristodulka.com)

Emotionally Aware Movie Recommender System: Fast Film 2020

Designed and built end-to-end recommender engine to enable Netflix users to utilize their own emotional state to browse their personalized movie recommendations faster and without external research.

Deployed the product with Docker and AWS Elastic Beanstalk.

Collaborative Filtering: Matrix Factorization Recommender System 2019

Built matrix factorization model on utility matrix with 600 users, 10,000 items, and 100,000 ratings.

Trained and evaluated SVD and NMF algorithms with Surprise package.

Translated information about the users' history, recommendations, and metadata from various datasets.

Toronto Crime and Folium 2019

Integrated ML into data analytics and improved Toronto crime dashboard published by Toronto Police Department. In Python, clustered and visualized criminal neighborhoods in interactive Folium heatmap.

Web Scraping Reddit: Text (Sentiment) Analysis 2019

Created a playbook to identify causes of negative sentiment associated with early launch of a new product. Introduced a method how to deliver and visualize customers' satisfaction in real time.

EDUCATION

MA in Applied Economics (Machine Learning, Data Science, Quantitative Research) 2018

Center for Economic Research and Graduate Education – Economics Institute (CERGE-EI)

CERGE-EI is in top 5% of globally ranked Economics institutions; US-Chartered Degree - New York.

Elected as a Speaker at Graduation Ceremony

BSc in Business Administration (Statistics, Economics) 2017

State University of New York in Prague (UNYP)

UNYP offers Bachelor's, Master's and PhD programs in partnership with US/European Universities.

Academic Recognition for outstanding GPA