Michal Malyska

ML Technical PM

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Skills

- Agile, Waterfall
- User Stories, Journey Mapping, Customer Discovery & Feedback
- Stakeholder management, Requirements tracking, KPI creation & tracking
- Architecture Decision Records, Roadmapping Documentation creation

Programming

- **Python**
  - PyTorch, TensorFlow, PyMC3
  - SpaCy, NLTK, Transformers
  - Pandas, Scikit-learn, XGboost
- **R**
  - tidyverse, RSTAN, brms
- **SQL**
- **JavaScript**
- **TypeScript**

Machine Learning

- Natural Language Processing
- Semi-Supervised Learning
- Information Extraction
- Statistical Learning
- Explainable ML
- Knowledge Graphs
- Machine Learning for Healthcare

Other

- Git, Bash
- Docker, MLFlow, WandB
- Redis, AWS EC2 / S3, Snowflake
- UMLS, SNOMED-CT

Work Experience

Semantic Health

Machine Learning Lead Jan 2021 - Dec 2022

· Spearheaded ML product roadmapping and delivery, expanding the core product into a new market (US)
· Created multiple new product lines based on customer calls and product insights from internal QA efforts leading to increases of 100k ARR per contract.
· Roadmapped and oversaw implementation of a new MLOps initiative to allow for better data and model monitoring
· Developed extensive model and prediction fallbacks allowing us to eliminate the need for on-call support on the ML side
· Created a custom multi-armed bandit model deployment scheme eliminating guesswork and quadrupling ML deployment velocity to production (monthly to weekly model release cadence)
· Led code review and tech debt improvement sprints across the entire python stack.

Semantic Health

Machine Learning Scientist Jun 2019 - Dec 2020

· Joined as first (and only technical) employee - architected and built the entire ML stack setting the foundation for the company's AI capabilities
· Conducted ML feature discovery calls with end users, resulting in the development of simple ML models that significantly enhanced product performance
· Planned and conducted data and label quality experiments identifying problems, addressed those by creating a novel, ontology-graph based label smoothing algorithm increasing downstream model performance by 35%
· Authored a series of Architecture Decision Records that still serve as the model for decision documents for the company

University of Toronto

Sessional Lecturer 2020-2023

· Developed comprehensive educational materials and delivered engaging instruction for a range of undergraduate and graduate courses in Statistics and Machine Learning.
· Communicated sophisticated technical topics to a non-technical audience

Education

University of Toronto

Master of Science - Statistics 2022

Actively engaged in reasearch leading to Publications and a Research Visitor position at St Michaels hospital in Toronto
Recognized for expertise, was offered to teach my own cohort as a sessional lecturer in Machine Learning

University of Toronto

Honours Bachelor of Science - Statistics 2019

4.0 GPA in Statistics, 3.78 overall
President of Statistics Union - brought it from a dead union (won with 14 total votes for a president of a union with 6000 members) to multiple yearly events with attendance in the hundreds

Competitions

ASA Datafest

1st. Place, Mentor 2017

Created a business case from click data for Expedia, aimed at improving the suggestion engine and customer retention, served as a mentor in the subsequent years

McKinsey Open Data Challenge

1st. Place 2018

Created a business case and an MVP aimed at re-routing low urgency patients to hospitals with lowest estimated combined travel and wait time