

Andrew Charabin

London, Ontario

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Work Experience

Voices

London, Ontario

A world-renowned voice marketplace that matches and facilitates work between voice talent and their clients.

Senior Manager, Data Science

Oct. 2021 – June 2023

- Instituted an organization-wide data science function by recruiting, onboarding, and mentoring a cohesive team of 2 Data Scientists and a Data Analyst, cementing competitive edge for a leading voice marketplace.
- Created a powerful engine to drive platform retention and liquidity improvements by leading a team within the Technology department responsible for centralizing metrics, uncovering insights, and optimizing KPIs with machine learning solutions for matching, pricing, and searching on the platform.
- Increased job hire rate by 5 points by transitioning a rules-based platform matching system to an algorithm that prioritizes voice talent matches based on the likelihood of hire using an XGBoost model.
- Contributed to a 3 point improvement in the yearly client retention rate by building a platform pricing recommendation system, including an AWS lambda function to invoke SageMaker models that predict a job's price and response volume, and a custom CI/CD solution developed within SageMaker Studio.
- Developed a proof of concept for a voice cloning service by building upon NVIDIA's Tacotron2 implementation, creating a scalable process for training models on newly recorded voices and enabling a pilot among 10 talents on the platform.

Manager, Analytics

Sept. 2020 - Oct. 2021

- Facilitated a cultural shift in how data is integrated into decision making towards prescriptive and focused analytics by recruiting and managing a team of 2 analysts within the Finance department, initiating scalable workflow processes such as an intake form, and acting as the champion for analytics at the company, justifying additional funding and responsibility through the creation of a machine learning (ML) team.
- Fostered a culture of productive experimentation by introducing best practices and formalizing processes for company-wide experimental design and A/B testing, resulting in the exclusion of costly low-value tests and data quality improvements.
- Developed and standardized reporting and insights around platform liquidity metrics including churn, freelancer earnings, and spend retention, arming strategic discussion among the board of directors.

Team Lead, Analytics

Aug. 2019 - Sept. 2020

- Established a centralized analytics capability to develop and oversee a common picture of company performance using Tableau and supporting the product department with operational business models and the effective use of analytics to drive their strategy, helping the company achieve 30%+ YoY growth.
- Orchestrated a cross-domain analysis of the pricing model by defining and delegating research needs to a working group of 2 UX researchers, a product manager, and 2 data analysts, connecting the dots to recommend 3 win-win improvements that planted the seed for future ML projects, and guiding a decision to switch the take rate from the client to talent side ultimately increasing yearly contribution by over \$1.5M.

Senior Financial Analyst

April 2018 - July 2019

CancerCare Ontario

Toronto, Ontario

Analyst Internship

April 2018 - July 2019

- Led the first predictive analytics study of Alternative Level of Care (ALC) patients by developing a linear regression to predict the number of ALC days a patient would accumulate in R, providing internal stakeholders insight on where reform should occur to reduce unnecessary costs and improve patient rehab.

Danby

London, Ontario

Pro Bono Consultant

Sept. 2016 – Dec. 2016

- Recommended new innovations for Danby's Managing Director to initiate into the R&D phase by leading a project team of 5 consultants to brainstorm potential innovations and model commercial viability.

Skills

Languages	Python, SQL, Tableau, R
Cloud	AWS (SageMaker, Lambda, Redshift), Google (Vertex AI, Big Query)
Machine Learning	Recommenders (collaborative, contextual), Regression (pricing), classification (hire, churn)
Analytics	Experiments, operational models, metrics & insights, visualization, data stories, strategy
Deep Learning	FNNs, RNNs
Libraries & Frameworks	PyTorch, TensorFlow, XGBoost
ML Ops	Linux, Git, Flask, Docker
Frontend	JavaScript, HTML, CSS
Soft	Collegiality, structuring and communicating complexity, continuous improvement

Education & Certifications

AWS Training & Certification

Certified Machine Learning Specialty Dec. 2022

Ivey School of Business

London, Ontario

Master of Science in Management (MSc), Business Analytics 2017 – 2018

Honors Business Administration (HBA) 2013 – 2017

Dean's Honor List 2014 – 2015

Varsity Tennis Player 2013 – 2018

Training

Coursera

A Crash Course in Causality: Inferring Causal Effects from Observational Data 2023

Google Cloud Big Data and Machine Learning Fundamentals 2023

Neural Networks and Deep Learning & Improving Deep Neural Networks 2023

Articles

CI/CD for Multi-Model Endpoints in AWS June 2023

A simple, flexible alternative for sustainable ML solutions

Goals, Principles & Constraints March 2023

A Framework for Organizational Leadership

Selecting the Right XGBoost Loss Function in SageMaker Feb. 2023

When and why you should use absolute or squared error

Projects

Please check [my website](#) for a collection of previous projects.

Text-to-speech tool with my voice 2023

Interests

Author for *Towards Data Science* 2023

Cover of Anywhere by Passenger Dec. 2020

A song I recorded by separately performing all instrumental parts – guitar, bass, drums, and vocals.