Andrew **Charabin**

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Work Experience

Voices   London, Ontario

A global voice marketplace that matches and facilitates work between voice talent and their clients.

Senior Manager, Data Science & Analytics   *Oct. 2021 – Jun. 2023*

➤ Instituted an organization-wide data science function by recruiting, onboarding, and mentoring a cohesive team of 2 Data Scientists and a Data Analyst, creating a 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.

➤ Reduced the time to market for new business intelligence reports and machine learning (ML) solutions by ~ 50% by leading a team to create core tables to use across analytics and ML use cases, manage associated queries and schedules on an EC2 instance, and facilitate migration to a new type of Redshift cluster while adopting data structuring best practices, establishing governance for the data warehouse.

➤ 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.

Manager, Analytics   *Sep. 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 an intake form, and acting as the champion for analytics at the company, justifying additional funding and responsibility through the creation of a 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 - Sep. 2020*

➤ Established a centralized analytics capability to develop and oversee a common picture of company performance using Tableau and support 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   *Apr. 2018 – Jul. 2019*

➤ Developed annual sales forecasts to guide financial targets; designed and rolled out sales comp. plans.

CancerCare Ontario   Toronto, Ontario

Analyst Internship   *May. 2017 – Aug. 2017*

➤ 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.

Skills

Languages/Tools	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
Libraries & Frameworks	PyTorch, TensorFlow, XGBoost, FNNs, RNNs
ML Ops	Linux, Git, Flask, Docker, Matillion
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	*Jan. 2017 – Apr. 2018*
Honors Business Administration (HBA)	*Sep. 2013 – Apr. 2017*

➢ Dean's Honor List 2014-2015

Varsity Tennis Player	*Sep. 2013 – Apr. 2018*

Training

University of Pennsylvania

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

Coursera

Bayesian Statistics: From Concept to Data Analysis	*Sep. 2023*
Google Cloud Big Data and Machine Learning Fundamentals	*Apr. 2023*
Neural Networks and Deep Learning & Improving Deep Neural Networks	*Apr. 2023*

Articles

CI/CD for Multi-Model Endpoints in AWS	*Jun. 2023*

A simple, flexible alternative for sustainable ML solutions

Goals, Principles & Constraints	*Mar. 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

Refer to this website for an overview of prior technical projects.

Text-To-Speech Tool with Andrew Charabin's Voice	*Mar. 2023*

➢ Built upon NVIDIA's Tacotron2 implementation to create a scalable process for training models on newly recorded voices; served by a flask API.

Interests

Article Author for *Towards Data Science*	*Feb. 2023 - Present*
Cover of Anywhere by Passenger	*Dec. 2020*

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