Jordan Bell

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jordanbell2357 • jordanbell2357 • Credly Profile

Data Analyst

Experienced Data Scientist with a Master of Science in Mathematics, specializing in geospatial and time series data analysis and operational SQL data pipeline development. Exceptional at producing top-quality visualizations, descriptive statistics, supervised learning predictive models, and time series analysis and forecasting. Solid command line and systems administration experience.

Key Skills

Data Analysis: Skilled in data cleaning and engineering.

SQL Development: Experienced in SQL data pipeline development.

Data Modeling: Skilled in constructing data models for various use cases.

ETL Processes: Skilled at designing and implementing ETL (Extract, Transform, Load) processes.

Machine Learning: Regression, classification, clustering, deep learning, anomaly detection, large language models (LLM).

Feature Engineering: Skilled in feature engineering for time series and geospatial machine learning.

Time Series Analysis: Skilled in classical time series analysis using SARIMAX.

Geospatial Analysis: Expert in conducting geospatial data analysis.

Data Documentation: Experienced in data documentation and stewardship.

Technical Training: Proficient in developing and delivering technical training programs.

Professional Experience

Canadian Tire — **Toronto**
Data Science Associate — *June 2022–August 2023*

- Blended pure data science methods with business insights to satisfy stakeholders.
- Developed store similarity metrics.
- Initiated a pipeline from Google Analytics.
- Built a data pipeline and dashboard for store participation in deals using SQL.

Consilium Crypto — **Toronto**
Data Science Intern — *January 2019–April 2019*

- Loaded, cleaned, and engineered features for time series data on cryptocurrency.
- Built and tested predictive models for price and volume.

Jordan Bell Tutoring — **Toronto**
Mathematics Tutor — *January 2021–June 2022*

University of Toronto — **Toronto**
Mathematics Course Instructor — *April 2013–April 2017*

- Mentored students and developed course materials.

Education

Analytics for Business Decision Making (SAS based program) — **George Brown College**
Graduate Certificate, Toronto — *2018–2019*

Department of Mathematics **University of Toronto**
Ph.D. candidate in mathematics: Candidacy Achieved 2011, Withdrawn 2016, Toronto *2009–2017*
Canada Graduate Scholarships, Doctoral (CGS D)

Department of Mathematics **University of Toronto**
Master of Science, Toronto *2007–2009*
Canada Graduate Scholarships, Master's (CGS M)

Mathematics **Carleton University**
Bachelor of Mathematics, Ottawa *2003–2007*
University Medal in Mathematics

Languages

SQL: MySQL, PostgreSQL, Hive, SparkSQL, Google BigQuery, Oracle, Teradata

NoSQL: Redis, MongoDB

Python: Python programming language

Scripting: Bash scripting and CLI tools such as awk, sed, gnuplot, ImageMagick, ffmpeg, GDAL

Statistical & Data Analysis: R, SAS, Excel, PowerBI DAX

Theoretical: Automata theory and regular expressions, relational algebra

Software and Platforms

Software
Hitachi Pentaho
Talend
KNIME
PowerBI
Tableau
MicroStrategy
ArcGIS, Mapbox, CARTO
Excel, Google Sheets
git, SSH, PGP
Docker
VMware, Virtualbox
Microsoft Teams

Platforms
Amazon S3
Microsoft Azure
Google Cloud Platform
Databricks
Cloudera
Teradata
Oracle
Elasticsearch
Datadog
Redis
Google Analytics
Atlassian Bitbucket, Confluence, Jira
H2O

Python Libraries Working Experience

Data Manipulation: NumPy, pandas, PySpark, Dask, imageio, librosa

Data Modeling: SQLAlchemy, Pydantic, erdantic

Visualization: Matplotlib, Seaborn, Graphviz

Regression, Classification, & Clustering: sklearn, scipy.spatial

Deep Learning: Keras, TensorFlow, PyTorch

Time Series Analysis: statsmodels.tsa, sktime, pmdarima, tsfresh, scipy.signal, scipy.fft

Text Processing: re, sklearn.preprocessing, sklearn.feature_extraction, automata-lib, spaCy, NLTK, Gensim

Geospatial Data: GeoPandas, Rasterio, xarray, h3, Cartopy

Bayesian Estimation: ArviZ, PyMC3

Numerical Mathematics: scipy.integrate, scipy.optimize, Theano

Symbolic Mathematics: SymPy

Selected Personal Projects

USCG NAIS Data Project: https://github.com/jordanbell2357/uscg-nais-data

- Analyzed AIS data to estimate shipping activity.
- Created visualizations for maritime traffic data.
- Processed 1-minute frequency AIS message data for 2022 for all vessels in US coastal and inland waters (2.9 billion entries).
- Conducted feature engineering for sessionizing vessel activity.

Canada 2021 Census by Forward Sortation Areas: https://github.com/jordanbell2357/canada-2021-census

- Conducted clustering and regression analyses on census data.

Selected Online Courses

Teradata: Intro to Advanced SQL Engine 17.10

Datadog: Fundamentals I

Talend: Data Fabric Explorer

IBM: Containers & Kubernetes Essentials

Cloudera: Modern Big Data Analysis with SQL

Microsoft: Azure Data Fundamentals DP-900 Exam Prep

AWS: Fundamentals by Amazon Web Services

Google: Data Analytics Certificate

The Linux Foundation: Open Source Software Development, Linux and Git Specialization

Selected Publications

Bell, Jordan, and Viktor Blåsjö. "Pietro Mengoli's 1650 Proof that the Harmonic Series Diverges." *Mathematics Magazine* 91, no. 5 (2018): 341–47. https://doi.org/10.1080/0025570X.2018.1506656. 2019 recipient of the Carl B. Allendoerfer Award, MAA.

Andrews, George E., and Bell, Jordan. "Euler's Pentagonal Number Theorem and the Rogers-Fine Identity." *Annals of Combinatorics* 16 (2012): 411–420.https://doi.org/10.1007/s00026-012-0139-4

Bell, Jordan. "A Summary of Euler's Work on the Pentagonal Number Theorem." *Archive for History of Exact Sciences* 64, no. 3 (2010): 301–73.https://doi.org/10.1007/s00407-010-0057-y

Bell, Jordan, and Brett Stevens. "A Survey of Known Results and Research Areas for n-Queens." *Discrete Mathematics* 309, no. 1 (2009): 1–31. https://doi.org/10.1016/j.disc.2007.12.043. Cited by 250+ publications.