

Calvin Chan

DATA SCIENTIST

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PROFILE

Astrophysicist turned Data Scientist, analytical thinker leveraging technical background and data science methods to improve business needs and decisions, with a constantly learning mindset and extensive attention to detail.

Passionate about diving into complex data analytical problems, finding innovative solutions in a fast-paced environment.

SKILLS

Python, SQL, Hive, Unix Shell Scripting, Git, Anaconda, Hadoop, Spark, Excel, Tableau, AWS, R, Docker, Databricks

Machine Learning, NLP, Data Modelling, Statistical Methods, Object-Oriented Programming, KPIs, Dashboards, Business Intelligence, Agile Methodologies, Data Pipelining, Neural Networks, A/B Testing, APIs, Research

NumPy, Pandas, Scikit-Learn, Matplotlib, SciPy, NLTK, Keras, TensorFlow, Pytorch, Seaborn, SymPy, HuggingFace, Plotly, StatsModels

PROJECTS

Data Scientist | [ECG Classification via Fourier Transforms](#)

FEB 2024 - APR 2024, CAPSTONE PROJECT

- Understood gaps in diagnostic accuracy within traditional biomedical signal analysis. Provided a solution by creating a machine learning model with an accuracy score of 84%, enabling additional support for interpretation.
- Utilized a Logistic Regression, a Multi Layer Perceptron, and a Recurrent Neural Network in Python to classify ECG time-series signals, processing over 20 million data samples. Improved classification recall to 91% using an agile methodology with project sprints, improving the detection of irregular signals.

Data Scientist | Shopify - SwiftMod

APR 2024, SHOPIFY HACKATHON W/ BRAINSTATION WINNER

- Collaborated in a cross-disciplinary team with Product Designers (UX) and Software Engineers to build a customer-focused software product designed to reduce customer support inquiry for Shopify merchants, thereby enabling them to focus on personal business growth.

Data Analyst | Letterboxd Reviews

OCT 2023, BRAINSTATION PROJECT

- Wrote advanced SQL queries to clean and transform data in order to draw valuable business insights for professionals in the film industry and shared analytical findings through data visualizations and dashboard in Tableau.

Undergraduate Researcher | Thesis

DEC 2020, CANADIAN INSTITUTE FOR THEORETICAL ASTROPHYSICS

- Conducted a cross-correlational analysis between reconstructed time series signals from pulsar systems in Python, in search for the possibility of gravitational microlensing over large timescales.

EDUCATION

BrainStation | Certificate, Product Management

JUN 2024 - JUL 2024, TORONTO, ON

BrainStation | Diploma, Data Science

JAN 2024 - APR 2024, TORONTO, ON

BrainStation | Certificate, Data Analytics

SEP 2023 - OCT 2023, TORONTO, ON

University of Toronto | Honours Bachelor of Science, Physics & Astrophysics

SEP 2017 - APR 2023, TORONTO, ON

EXPERIENCE

Teaching Assistant, Data Science Diploma Program | BrainStation

JUN 2024 - JUL 2024, TORONTO, ON

- Facilitating morning kick-offs and 1-on-1 mentorship to address questions, reviewing key concepts and topics covered in class to reinforce learning.
- Conducting code review in Python for ~10 students and participating in weekly retros and stand-up with the Education Team.

Research Internship | Dunlap Institute for Astronomy & Astrophysics

MAY 2020 - AUG 2020, TORONTO, ON

- Analyzed and tested new reconstruction algorithms using large real and simulated astronomical data.
- Managed an assortment of data analytical tasks and data visualizations in Python as well as progress reports and meeting project expectations with minimal supervision.