

Calvin Chan

DATA SCIENTIST

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PROFILE

Astrophysicist turned Data Scientist, interested in diving deep into machine learning topics.

Passionate about tackling complex problems through the lens of data science finding innovative solutions.

SKILLS

Python, SQL, Anaconda, Bash, Git, GitHub, R, Apache Spark, Apache Hive, Hadoop, Excel, Tableau, AWS, Docker

Machine Learning, Data Wrangling, Data Analysis, Hypothesis Testing, A/B Testing, Statistical Modeling, Sentiment Analysis, Time Series, Cross Correlation, Network Analysis

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

PROJECTS

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

FEB 2024 - APR 2024, BRAINSTATION CAPSTONE

- Built an ECG classification model utilizing mathematical techniques for signal denoising providing users with a diagnostic outcome. Enhanced diagnostic accuracy for medical professionals by providing additional support for interpretation leading to improved treatment outcomes.

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 consumer software product designed to reduce customer support inquiry for Shopify merchants, thereby enabling them to focus on personal business growth. Presented analytical findings to the Shopify team justifying the need for our solution.

Data Analyst | Letterboxd Reviews

OCT 2023, BRAINSTATION PROJECT

- Implemented a sentiment analysis through a Lexicon-based NLP technique in Python using Letterboxd movie reviews to draw insights for industry professionals. Results revealed Covid-19's significant negative impact on movie reception and engagement.

Undergraduate Researcher | Thesis: Recovering Dispersion Measure Fluctuations from the Interstellar Medium

DEC 2020, CANADIAN INSTITUTE FOR THEORETICAL ASTROPHYSICS

- Conducted a cross-correlational analysis in Python between two reconstructed time series signals from pulsar J2219+4754, resulting in a Pearson coefficient of 0.63, indicating a high correlation for the possibility of 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

Research Internship | Dunlap Institute for Astronomy & Astrophysics

MAY 2020 - AUG 2020, TORONTO, ON

- Analyzed and tested new reconstruction algorithms on real and simulated astronomical data, leading to the discovery of an improved reconstructed output signal by 300% using a wavelet prior as opposed to a Dirac prior for specific astronomical structures.
- Managed an assortment of data analytical tasks, data visualization and progress reports, meeting project expectations with minimal supervision.