

Shayan Gheidi, PhD (Canadian Citizen)

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Education

- **PhD Physics**, Simon Fraser University, Canada (September 2017 – April 2022)
- **MSc Physics**, University of Toronto, Canada (2016 – 2017)
- **BSc Physics**, University of British Columbia, Canada (2011 – 2016)

Skills

- **Programming**: Python (pandas, SciPy, Matplotlib, TensorFlow, Dash, scikit-learn), SQL, Jupyter, PostgreSQL
- **Cloud/Tools**: Google Cloud Platform (GCP), BigQuery, Cloud Run, Cloud SQL, Vertex AI, AWS (Lambda, EC2, ECS, ECR), Docker, Git (GitHub, GitLab), CI/CD pipelines, Tableau, Power BI, Excel, OpenAI API, Google Analytics
- **Quantitative**: Machine learning, regression, exploratory data analysis, statistical analysis, modelling, interpretation, and visualization of large datasets, digital signal processing, business analytics, forecasting, time series, web-scraping, dashboards and web design, natural language processing (NLP), A/B testing, LLMs
- **Other**: Excellent written, verbal communication and interpersonal/social skills. Great team player with a paralleled ability to work independently and resourcefully. Excellent liaison with business and sales

Experience

- **Associate Data Scientist**, May 2022 – December 2024
Euromonitor International, Chicago, IL, USA (TN Visa)
 - Communicated results of **statistical data analysis** and reports to business and stakeholders,
 - Communicated quantitative principles in an easy-to-understand and gentle manner to clients and sales,
 - Worked closely with sales and business to develop **dashboards** for ecommerce data,
 - Trained, tested, monitored, and built complex machine learning models (**NER & logistic regression**) used to predict product attributes based on textual information (**NLP**) scraped from retailer websites,
 - Discovered and implemented new datasets (tens of GBs) to train and improve otherwise stagnant model **performance metrics (precision/recall)** by 10% and 17%, respectively,
 - Built internal web application using **Python** (Dash) that allows TBs of data stored on **PostgreSQL** to be labeled using an intuitive web interface/dashboard. Deployed to **Google Cloud Run via Docker**.
 - In charge of high value client project involving TBs of scraped data and predictions to provide insight into the unit price and “digital” share-of-shelf of products over the past 5 years for various countries, retailers, and product categories. Sophisticated interpolation, outlier detection, smoothing algorithms and other statistical methods were implemented using **BigQuery**.
 - Developed and scaled a fully featured internal application (using **Python** / Dash) with an intuitive UI which includes interactions with a custom database (**BigQuery** and **PostgreSQL**), providing users with detailed statistical analysis and insights on various products. Created data pipelines using Airflow.
- **PhD Researcher**, September 2017 – April 2022
Department of Physics, Simon Fraser University, Vancouver, BC, Canada
 - Uncovered the magnetic properties of superconducting cuprates and other quantum materials using muon spin relaxation spectroscopy (a technique closely related to magnetic resonance imaging [MRIs!]),
 - Analysis, fitting, statistical and computational modelling, visualization, simulation, regression, presentation of spectrometer data. Building Python software to perform statistical analysis and regression,
 - Co-supervised undergrad students, award winning talks and conferences, published 5 peer-reviewed papers
- **MSc Researcher**, 2016 – 2017
Department of Physics/Chemistry, University of Toronto, Toronto, ON, Canada
 - Designed, manufactured, and characterized nanotechnology-based materials
 - Developed a Python program that analysed, fit (chi-squared regression) and classified hundreds of data files to generate a visual summary of nanotechnology-based materials phase diagrams.

Interesting Personal Projects

- [1-800 Slowed & Reverb](#): A moody music processing web application written in Python. Completely written, designed and deployed from scratch. The only audio effect website that works on Soundcloud links!
- [Musical Horoscope](#): A personalized horoscope generator based on what you listen to on Spotify!