Shayan Gheidi, PhD

Montreal, QC, Canada | shayan.gheidi@gmail.com | Website | LinkedIn

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
  - 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!