Shayan Gheidi

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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/Frameworks***: Python (pandas, SciPy, Matplotlib, TensorFlow, Dash / Plotly, scikit-learn), SQL, Jupyter Notebook, PostgreSQL
- ***Cloud/Tools***: Google Cloud Platform (GCP), BigQuery, Cloud Run, Vertex AI, AWS (Lambda, EC2), Docker, Git (GitHub, GitLab), Tableau, Power BI, Excel, LaTeX
- ***Quantitative***: Machine learning, regression, statistical analysis, modelling, interpretation, and visualization of large datasets, digital signal processing, sentiment analysis, business analytics, forecasting, time series, web-scraping, dashboards, natural language processing (NLP)
- ***Other***: Excellent written, verbal communication and interpersonal skills. Great team player with a paralleled ability to work independently and resourcefully.

Experience

- ***Associate Data Scientist,*** May 2022 – Present
  Euromonitor International, Chicago, IL, USA
  - Trained, tested, monitored, and built complex machine learning models used to predict product attributes based on textual information scraped from retailer websites,
  - Discovered and implemented new public datasets to train and improve otherwise stagnant model performance metrics (precision/recall) by > 10%,
  - Built internal web application using Python (Dash) that allows TBs of data stored on PostgreSQL to be labeled using an intuitive web interface/dashboard,
  - 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. Due to the large scope of the project, sophisticated interpolation, outlier detection, smoothing algorithms and other statistical methods were implemented using BigQuery.
- ***PhD Researcher***, September 2017 – April 2022
  Department of Physics, Simon Fraser University, Vancouver, Canada
  - Uncovered the magnetic properties of superconducting cuprates and other quantum materials using muon spin relaxation spectroscopy,
  - Analysis, fitting, statistical and computational modelling, visualization, simulation, regression, presentation of data. Building python software to perform statistical analysis and regression,
  - Co-supervised undergraduate student projects.
- ***MSc Researcher*****,** 2016 – 2017
  Department of Physics/Chemistry, University of Toronto, Toronto, Canada
  - Designed, manufactured, and characterized nanotechnology-based materials (transport measurements in gold nanoparticle films),
  - 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.
- ***Researcher,*** 2015 – 2016
  Paul Scherrer Institut, Villigen, Switzerland
  - Data analysis and design of a hybrid radiofrequency (NMR) / muon spin relaxation spectrometer.

Certificates

- Machine Learning with Python **(IBM, Coursera)**

Interesting Personal Projects

- Drakify: A homemade digital signal processing library for Python with cool effects for audio.

Languages

- English (native), Farsi/Persian (native), French (basic)