GURPREET **SINGH**

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https://github.com/gur-p-reet/
https://gur-p-reet.github.io/showcase/

TECHNICAL SKILLS

Data Analysis and Visualization: Power BI, MS Excel, Oracle SQL Developer, Snowflake, Rest API, SOAP, SSMS, Tableau
Programming Languages: SQL, Python, Java, JOGL, HTML, CSS, JavaScript, Fortran, LaTeX, XML, Linux bash
Frameworks/Libraries: Pandas, Scikit-Learn, NumPy, Matplotlib, Seaborn, ReactJS, Node.js, NPM, Tensorflow,

EDUCATION

M. Sc. (Computer Science)– University of Northern British Columbia   Prince George, BC | Sept 2016-April 2019

WORK EXPERIENCE

Business Analyst | ZEMA Global Data Corporation | Richmond, BC | June 2022-Present

- Employed a diverse toolset including Power BI, Excel, Python, REST API, Oracle SQL Developer, and more for meticulous data analysis and insightful reporting, enhancing the precision and effectiveness of decision-making processes.
- Played an active role in the seamless data flow from ZEMA application to different downstream systems and developed Python scripts for REST APIs to read JSON and XML file formats and extract data in the required formats.
- Took charge of in-depth analysis, resolving intricate curve reconciliation tasks in the upgraded ZEMA version. Scrutinized multiple reports, identifying and resolving data discrepancies for a seamless transition for clients.
- Developed Python scripts to automate manual analysis tasks, significantly reducing weeks' workload to a few hours.
- Utilized advanced SQL techniques, including writing complex joins, subqueries, window functions, and extracting required data from XML formats for efficient data analysis and reporting.
- Led comprehensive analysis before client onboarding, meticulously validating data accuracy, consistency, and adherence to required formats. Rigorously examined the data sources, ensuring precision, and guaranteed that clients' transition to the live environment was smooth, successful, and backed by high-quality data.
- Utilized Power BI to create multiple reports, extracting data directly from Oracle Database. Employed advanced visualization techniques to transform raw data into informative graphs, enhancing insights through diverse features.

IT Support Analyst | ZEMA Global Data Corporation | Richmond, BC | April 2021-May 2022

- Managed Active Directory administration, and MS Exchange, and resolved various end-user issues.
- Supported multiple administrative portals, including Office 365, JIRA, and other data solution tools.
- Maintained accurate and timely reports to ensure compliance with inventory requirements.

Teaching Assistant | University of Northern British Columbia| Prince George, BC | Sept 2016-Dec 2018

- Instructed and assessed students to meet course objectives and enhance learning outcomes.
- Provided project guidance, ensuring timely assignment completion, and participated in professional development activities.

Research Assistant | Raman Spectroscopy Laboratory, Panjab University| Chandigarh, India | July 2010-June 2015

- Conducted experiments using various sophisticated scientific instruments, performed ETL operations, and ensured the accuracy and reliability of the data for analysis.
- Optimized quantum chemical model predictions for multiple antioxidant molecules through hyperparameter tuning, enhancing the accuracy and efficiency of computational simulations.
- Utilized a range of visualization and data analysis tools such as OriginLab, Gnuplot, Qtiplot, Spekwin, LaTeX, Linux Vim, and MS Excel for diverse tasks including curve fitting, peak analysis, baselining, signal processing, and statistical analysis.
- Applied statistical techniques to analyze patterns, correlations, and evaluation metrics, extracting meaningful insights.

Research Assistant | Cyclotron Laboratory, Panjab University | Chandigarh, India | Aug 2008-June 2010

- Collected and cleaned data from heavy-ion fusion experiments at IUAC, New Delhi, India.
- Studied anomalous deviations in experimental data compared to model predictions (statistical and dynamical models)
- Condensed outcomes through written reports, graphs, and tables for clear communication.

MAJOR PROJECTS

Dog breed Identification-Data Analysis and ML

- Performed data transformation and model prediction using deep learning API (Keras-mobilenet_v2).
- Trained the model on more than 10,000 images. Made predictions for test data via calculating prediction probabilities.
- Utilized Git and GitHub for efficient code repository management and version control.

Protein Structure Optimization-Java Application

- Created an interactive user interface using Java and JOGL with multiple input/ output/analysis options.
- Implemented meta-heuristic optimization algorithms and on-demand hybridization among algorithms.

RESEARCH PUBLICATIONS

Presented research work in various conferences, workshops, and symposia, and contributed six publications in scientific journals.