

GURPREET SINGH

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<https://gur-p-reet.github.io/portfolio/>
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TECHNICAL SKILLS

Data Analysis and Visualization: Power BI, MS Excel, Oracle SQL Developer, Snowflake, SSMS, Tableau

Programming Languages: SQL, Python, Java, JOGL, HTML, CSS, JavaScript, Fortran, SAS, LaTeX

Frameworks/Libraries: Pandas, Scikit-Learn, NumPy, Matplotlib, Seaborn, ReactJS, ExpressJS, Node.js, NPM, Tensorflow

EDUCATION

M. Sc. (Computer Science)– University of Northern British Columbia

Prince George, BC | Sept 2016-April 2019

Ph. D. (Physics-Computational Chemistry)– Panjab University

Chandigarh, India | July 2010-Nov 2015

WORK EXPERIENCE

Business Analyst | ZE Power Group Inc. | Richmond, BC | June 2022-Present

- Offered extensive technical and operational assistance to ZEMA users, taking a proactive approach in analyzing and resolving any issues that emerged.
- Played an active role in the seamless data flow from ZEMA to downstream systems by executing data extraction, meticulous data cleansing, and proficiently creating, updating and modifying SQL scripts.
- Leveraged an impressive array of tools including Python, Power BI, MS Excel, and Oracle SQL Developer to perform comprehensive data analysis, identify emerging trends, and drive informed business decision-making.

IT Support Analyst | ZE Power Group Inc. | Richmond, BC | April 2021-May 2022

- Managed Active Directory administration, MS Exchange, and resolved various end-user issues.
- Supported multiple administrative portals, including Office 365 and 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 and motivation, ensuring timely assignment completion.
- Actively engaged in professional development activities and collaborated with instructors and staff.

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

- Conducted experiments using various sophisticated scientific instruments, cleaned and structured the data using tools such as MS Excel, Spekwin, Linux-Vim, etc., ensured the accuracy and reliability of the data for analysis.
- Optimized Quantum Chemical Model predictions through hyperparameter tuning, enhancing the accuracy and efficiency of computational simulations.
- Applied advanced statistical techniques and tools to analyze patterns, correlations, and evaluation metrics, extracting meaningful insights from complex datasets.

Web Developer (Part Time) | Chandigarh College of Eng. and Tech. | Chandigarh, India | July 2010-April 2011

- Advised, maintained and updated college website (HTML, CSS, JavaScript).
- Designed web forms for online applications. Updated College website with scientific facilities/events.

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.
- Evaluated experimental data and compared results with model predictions (statistical and dynamical models).

MAJOR PROJECTS

Employee Attrition- Data Analysis and ML Modelling

- Performed data cleaning, transformation, analysis using different Python libraries on employee attrition data.
- Built models based on RandomForestClassifier, Logistic regression and Tensorflow and summarized results.

Smart Sense-Web Application

- Developed the front end using React library. Utilized Node.js, Express.js and PostgreSQL for back-end development.
- Deployed the application on Heroku and linked the application with Clarifai API for face detection.

Protein Structure Optimizer-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.