Ronnit Roy Burman

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Objective:
A machine learning engineering graduate with hands on work experience as a Data Scientist - seeking opportunities to be able to apply Machine Learning methods and develop algorithms to solve real world industrial problems.

Technical Skills

- **Tools & Languages -** Python, PostgreSQL, BigQuerry, R, AWS, Matlab
- **Packages -** NumPy, Pandas, Scikit-Learn, Git, Jupyter, PyTorch, Keras
- **Data Visualization -** Power BI, Matplotlib, Seaborn
- **Machine Learning -** CNN, SVM, Random Forest, PCA, LDA, KNN, Deep Learning
- **Statistical Modelling -** IBM SPSS, Clustering, ANOVA, Logistic Regression, A/B Testing

Work Experience

Dec 2022 – Jun 2022 | ***Data Science Intern*** **- Tyco Security Products**
- Increased sales opportunities by 7% through development of Recommender and GeoSpatial Analytics packages for the Technical Sales team
- Increased 'unique views per day' by 113% by initiating optimized mobile view reports for Power BI
- Performed EDA on more than 50GB data using PostgreSQL, Pandas and Google BigQuerry

Dec 2022 – Jan 2022 | ***Teaching Assistant*** **- University of Waterloo**
- SYDE600 (Fall 22) - Helped students with the SPRINT protocol for Systems Design methods
- SYDE-192L (Spring 22) & BME-341L (Winter 22) - Helped students implement Digital Logic Systems

Sep 2021 – Jul 2016 | ***Sr. Systems Engineer*** **- Johnson Controls**
- 10%-30% reduction in energy consumption of Commercial Building by engineering solutions after analyzing data from building sensors such as pressure sensors, temperature and humidity sensors, flowmeters, energy meters, occupancy sensors and the like.
- 100% Client retention and 137% increase in Client re-orders as a result of client communication measurable by appreciation emails from clients and 100% response rate 24hrs of client email

Technical Projects

Mar 2022 – Jan 2022 | ***American Sign Language Recogition*** **- Github Link**
- Built and compared performance of various Machine Learning (Logistic Regression, SVM and Random Forest classifiers) and Deep Learning classifiers for the American Sign Language dataset. Several dimensionality reduction techniques are applied to assess the complexity of the data and its compressibility capacity.

Sep 2022 – Apr 2022 | ***American Sign Language (ASL) detection based Education App*** **- Personal Project**
- Prototyped an ASL fingerspelling education system app which increased the effective learning metric by 2-3 times in comparison to the current technology in the market. By incorporating the ASL fingerspelling detection feature in the backend we were able to provide feedback on the correctness of signing to the user.

Jun 2022 – Oct 2022 | ***GeoSpatial Data Analytics & Data Visualization*** **- Personal Project**
- Cleaned raw data to extract zip-code and city data. Increased capacity from 100 requests per minute to unlimited requests by developing a package to bypass GIS API call). Visualized data for GeoSpatial analytics and understanding using ESRI modules in Power BI.

Jul 2018 – Jan 2017 | ***Building Traffic Characterization using Building Data*** **- Personal Project**
- Hypothesized a model to predict customer influx in a retail store using BAS data. Chiller Plant Optimization (CPO-10, CPO-30) on the output of this predictor leads to a potential 10% reduction of overall operating cost of the store in terms of energy savings from the HVAC equipment.

Education

Dec 2022 – Sep 2021 | ***Master of Engineering*** **- Artificial Intelligence and Machine Learning** — GPA: 89.5
Systems Design Engineering Department
University of Waterloo, Waterloo, Ontario

May 2016 – Jul 2012 | ***Bachelor of Technology*** **- Electronics and Instrumentation** — CGPA: 8.1
School of Electrical Engineering
VIT University, Vellore, TN - India