UBC Science Co-op

Pushya Jain

Major in Computer Science (minor in Data Science), 3rd year

pushya22.jain@gmail.com   +1-604-655-9710   GitHub/PUSH-YA   LinkedIn/pushya-jain

Technical skills

Languages/Tools: Python, R, Julia, MATLAB, SQL, Java, JavaScript, C/C++, C#, Excel VBA, Tableau/PowerBI, GLSL
Data Science specific skills: ETL, EDA, A/B testing, hypothesis testing, building ML pipelines, Feature extraction/engineering, Hyperparameter tuning, NLP, Computer vision, PCA, Markov chains
Frameworks/Libraries: Pandas, NumPy, Scikit-learn, SciPy, NLTK, SpaCy, OpenCV, MatplotLib, PyTorch, Tidyverse, Infer, JUnit, JSwing, threeJS

Technical Work Experience

Business intelligence & Data warehousing Intern   *Jan 2024 – Present*
First Nations Health Authority, Vancouver

- Performed efficient Data integration (using SSIS) by building, implementing, and maintaining ETL's (extract transform, and load).
- Performed multidimensional data analysis and business intelligence modelling (using SSAS) to create interactive dashboards for clients using PowerBI and Tableau.
- Conduct data profiling to identify and address errors, proposing and implementing mechanisms for handling data quality issues.
- **Learned:** SSIS, SSAS, ETL, SQL and M/DAX scripting; data modelling, data visualisation, data and wrangling using PowerBI/Tableau.

Undergraduate Teaching Assistant (UTA)   *Sept 2022 – Dec 2023*
University of British Columbia, Vancouver

- Assisted in facilitating classes of up to 60-100 students to increase engagement and understanding of the material through tutorials for Math department (differential and integral calculus courses).
- Facilitated and executed Computer science labs aiding students to solve complex computation and programming problems for the Computer Science department (Fundamental programming course).
- Supervise and monitor student activities to ensure a productive and respectful learning environment in computer science labs and maths tutorial classes.
- **Learned:** how to break down complex and difficult concepts and communicate them effectively for better understanding, work within a large chain and team collaboration

Technical Projects:

Health Insurance Statistical model   *Aug 2023 – Dec 2023*
Technologies: R, dplyr, ggplot2, tidyverse, gridExtra, glmnet, car, broom, Git, JupyterLab

- Performed statistical inference to answer how do various individual and geographic factors impact the annual health insurance charge.
- Performed EDA for a preliminary analysis of the Variables involved in forming the statistical model and then cross-validation was performed to tune the hyperparameter of statistical model
- Linear regression model with lasso regularisation was used to perform multiple hypothetical tests on the variables to find the statistically significant variables (ensuring model validity using VIF and F-stat with a full model).
- The model found BMI, age, and smoking status to be statistically significant factors at $\alpha=0.05$ with smoking status having the highest correlation with annual monthly insurance charge. Factors such as having children seemed to have high correlation but due to low t-statistic was not statistically significant.

Credit card default classifier   *May 2023 – Jun 2023*
Technologies: Python, Scikit-learn, Pandas, matplotlib, NumPy, SHAP, Git, JupyterLab
- Performed Exploratory data analysis and build preprocessing pipelines to transform input data into usable formats for different machine learning models.
- Built ML pipelines for linear (logistic regression) and non-linear (SVM-RBF and Random Forest) classifiers.
- Performed hyperparameter optimisation using grid search and randomised search for different models.
- Forward selection with a logistic regression model is used for feature selection.
- The model yielded an 82% accuracy with low recall due to class imbalance.

Volunteer:

UBC AI Club   *Sept 2023 - Present*
University of British Columbia, Vancouver
- Responsible for developing a comprehensive and diverse AI and Machine Learning curriculum.
- Organizing and conducting workshops to educate club members on practical AI/ML tool usage within their respective domains.
- Collaborating with industry professionals and subject matter experts to arrange talks and lectures.
- **Learned:** Curriculum designing, presentation skills, problem solving, collaborative teamwork, project planning and management

ISB Philanthropy Organisation   *Sept 2019 - Feb 2020*
International School of Berne, Konolfingen
- Responsible for raising money for BM Twin School in Ethiopia and help them to continue their education (Especially during the COVID 19 pandemic peak)
- Organised and facilitated events such as a leg waxing events for with an interactive fundraising element to raise more money for the school.
- Organised Bake sales every Friday through the ski-train to raise more awareness and raising funds.
- **Learned:** Organisational skills, Collaboration between different board members, Marketing skills

Education:

University of British Columbia   *Aug 2021 – Present*
- 3rd year of BSc in Computer Science (minor in data science)
- **Achievements:**
  - *Faculty of Student International Scholarship* - Faculty who have demonstrated strong academic achievement, engagement towards their faculty and potential to make contribution to their chosen field of study.
  - *Trek excellence scholarship award* - Trek Excellence Scholarship is offered every year to students in the top 10% of their undergraduate year, faculty, and school.
- **Relevant courses:** Software construction, Data structures and algorithms, Computer systems, Statistics modelling for data science, Datamining and Machine Learning, Computer graphics, Intro to AI.

Google Data Analytics Certificate   *Jul 2022 - Dec 2022*
- **Relevant skills:** Data processing and exploratory analysis using google spreadsheet, Excel, SQL and R, Data visualisation using Tableau and Looker, transforming complex data into actionable and clear insights, interpreting, and communicating data analytical finding.