Herleen Kaur Sanhotra

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EDUCATION

Master of Science, Computer Science — *Aug 2019 - May 2021*
University of North Carolina at Charlotte, NC — **GPA: 4.0**
Relevant Coursework: Machine Learning, Natural Language Processing, Big Data Analytics, Knowledge-Based Systems(Google Cloud)

Bachelor of Engineering, Computer Engineering — *Aug 2013 - May 2017*
University of Mumbai, India — **GPA: 3.7**
Relevant Coursework: Data Warehouse & Mining, Database Management Systems, Artificial Intelligence, Data Structure & Algorithms

PROJECTS

Text Summarization on Amazon Food Reviews — *Sept 2020 - Dec 2020*
- Built an abstractive text summarizer to create summaries of 600,000 reviews on **Google Colab** with a **GPU** environment
- Leveraged **Natural Language Toolkit** for preprocessing the text data, significantly reducing the noisy data by 68%
- Developed a multilayer **LSTM** model with an attention mechanism to remove limitations of long sentence sequences

Face Mask Detection on Image Dataset — *Sept 2020 - Dec 2020*
- Built a Face Mask Detector using a deep learning **Convolutional Neural Network(CNN)** model
- Optimized the model by adding additional input facial features to improve the detection of the face on the input images
- Tested the model's ability to classify a person wearing a face mask in real-time using **OpenCV**

Prediction of Severity of Traffic Accidents in the US — *Jan 2020 - May 2020*
- Led a team of five to build a real-time prediction system that can be used to determine accident-prone areas based on factors such as time, weather, and location using **Python** for data preprocessing and **Google Cloud Platform** for modeling
- Trained a machine learning classification model that gave an ROC-AUC score of 0.98 and a precision of 86.96%

Data Analysis on Student Alcohol Consumption — *Jan 2020 - May 2020*
- Conducted exploratory data analysis on secondary school students data to understand various social and economic factors leading to alcohol consumption using **Python** libraries such as **Matplotlib** and **Seaborn**
- Calculated feature importance to find out the top 5 variables impacting the target variable using **Random Forest Classifier**

Walmart Store Sales Forecasting — *Aug 2019 - Dec 2019*
- Led a team of four to forecast weekly sales by building six different regression models(**Linear**, **Ridge**, **Lasso**, **Elastic-Net**, **Decision Tree** & **Random Forest)** and comparing their performance using metrics R2 score and Root Mean Square Error
- Established **CRISP-DM** framework to plan different phases of the project and assess various challenges during each phase

TECHNICAL SKILLS

- 2 years of experience in **Python** programming language for data analysis and building machine learning models
- Proficient in Python libraries: **Pandas, Numpy, Matplotlib, Scikit-Learn, Seaborn, Natural Language Toolkit, and Keras**
- Ability to clean, preprocess, transform and visualize different kinds of datasets using **Jupyter Notebook**
- Good understanding of relational database(**MySQL**) and ability to write queries in **Structured Query Language(SQL)**
- Sound knowledge in working with cloud technologies **Google Cloud Platform(GCP)** and **Google Colab**
- Working knowledge of web technologies **HTML**, **CSS**, and **PHP** for frontend development

EXPERIENCE

Trainee Programmer, Infinite IT Solutions Pvt. Ltd, India — *Mar 2018 - Sept 2018*
- Gathered client requirements and identified ways to improve the design and development of an existing website
- Collaborated with the UI developer for updating different GUI components of the website using **HTML** and **CSS**

LEADERSHIP EXPERIENCE

General Secretary, **IEEE**, Branch Code 02461, Mumbai, India — *Aug 2016 - May 2017*
- Responsible for conducting meetings, planning and organizing technical events for 100-200 college student participants

Managing Director, **Women In Engineering(WIE)**, Mumbai, India — *Aug 2016 - May 2017*
- Increased the female volunteers and members in the organization by approximately 5 times the initial participation