

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(NLP) 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 using **Python**
- Created user dashboard to determine the top 10 accident-prone states using **Google Data Studio**
- Trained a machine learning classification model on GCP that gave an ROC-AUC score of 0.98 and a precision of 86.96%

Walmart Store Sales Forecasting Aug 2019 - Dec 2019

- Led a team of four to build a prediction model for forecasting weekly sales and developed visualizations using **Seaborn**
- Built six different regression models namely **Linear, Ridge, Lasso, Elastic-Net, Decision Tree & Random Forest**
- Established **CRISP-DM** framework to plan different phases of the project and assess various challenges during each phase

Recommendation System for Graduate Admissions Aug 2019 - Dec 2019

- Built a recommendation system on **XLMiner** for prospective students to assist them in shortlisting universities
- Confirmed the hypothesis that student grade is highly correlated with their chance of admission into a university

TECHNICAL SKILLS

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- Two years of experience in **Python** programming language for Data Wrangling 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 **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