# Vivekpandian Veerapandian

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**Data Scientist** with **3-years of experience** in extracting business insights from data points by building Linear and Non-Linear models. Equipped with in-depth knowledge and practice of deploying scalable end-to-end machine learning models in the Cloud.

#### **EDUCATION**

*M.S., Data Science and Business Analytics*, The University of Texas at Dallas GPA: 3.67 Dec 2020

- Coursework: Statistics, Predictive Analytics, Econometrics, Time Series Forecasting, Machine Learning, Deep Learning
- Project Mentor, BALC: Mentored 15 Grad Students in an Intra College ML project competition, and secured 3rd place

**B.E., Electronics and Communication**, College of Engineering Guindy, India

May 2011

#### **TECHNICAL SKILLS**

Programming: Python (Scikit-learn, Pandas, Numpy, TensorFlow, PyTorch, Keras, OpenCV, PySpark), R, SQL, SAS

**Data Visualization** : Tableau, Power BI, Shiny, GGPlot2, Plotly, Matplotlib, Seaborn, Bokeh

Databases & Bigdata : BigQuery, MySQL, PostgreSQL, Oracle, Graph, MongoDB (NoSQL), Hadoop, Hive, Spark

ML Concepts : Hypothesis Testing, A/B Testing, Regression, Classification, Clustering, NLP, Computer Vision

#### PROFESSIONAL EXPERIENCE

#### Senior Data Scientist, Ordermycake.in

Jan 2015 - June 2018

- Technologies: Python, R, MySQL, Tableau, AWS EC2, S3
- Generated **18% increase in revenue to \$5k** in 2017 by leveraging sentiment analysis, extracting topics and key phrases on customers feedback, and suggested a new payment method to solve delivery problems
- Designed 3 A/B tests to identify the most captivating marketing campaign, resulted in a 30% increase in sales
- Revamped coupon mailing strategy for 3 customer segments by clustering using **K-means** and identifying the most engaging coupons leading to a **12% estimated increase in headcount**
- Identified 4500 potential churn customers by developing ML models and mitigated 36% by offering them discounts
- Recommended optimized price for products by web scraping and data mining to analyze competitor product prices,
   leading to a \$3K increase in yearly revenue
- Led a 10-member cross-functional team to build an end to end B2C platform to expand the operations from 2 to 8 cities

### **Software Engineer,** Cluster Wireless Software

Mar 2012 - Sept 2014

- Technologies: MySQL, C
- Designed SQL queries to extract information from IoT sensor data and identified anomalies by K-means clustering
- Analyzed product pain points and collaborated with a multi-functional team to develop robust solutions to meet client requirements, increased project conversion to 30%

#### INTERNSHIP EXPERIENCE

#### **Data Science Intern,** SuperWorld, United States

Sept 2020 - Present

- Technologies: R, Python, Google Analytics
- Built **Predictive model** using Decision Tree to find the likelihood of a purchase from clickstream data and optimize the model by adding new features to improve the precision rate to 76%

## PERSONAL PROJECTS (DATA SCIENCE)

#### Stress Detection on Social Media

Python (Natural Language Processing)

- Leveraged web scrapping to scrape 30k labeled Reddit posts and extracted features by pre-training Word2Vec, Doc2Vec and BERT embeddings with 190k unlabeled posts that capture semantic and syntactic similarity among words
- Trained XGBoost and BERT models to classify Stress posts on GCP, that achieved accuracy of 92.74% and recall of 94.58%

## **Traffic Sign Recognition for Autonomous Driving**

Python (Computer Vision)

- Pre-processed images and experimented with 5 different CNN architectures using Tensorflow to classify 43 traffic signs
- Deployed an interactive web APP that classifies traffic sign from user input using Flask(REST API) and Kubernetes on GCP

#### **Credit Card Fraud Detection**

Python (Supervised Learning)

• Performed quantitative analysis and feature selection. Built **ETL pipeline** using **PySpark** to predict fraud using algorithms like SVM, KNN, Naïve Bayes, Random Forest, and Neural Networks with **SMOTE** resampling and achieved AUC of 0.82