DEEP PATEL

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EDUCATION

Towson University- *BS in Computer Science*   Towson, MD, May 2019

GPA-3.98/4.00 | Summa Cum Laude, Dean's List (8x), International Student Scholarship.

Relevant Coursework: Database Management, Scripting Languages, Data Structures and Algorithms, Advanced Calculus, Differential Equations, Probability & Statistics, Linear Algebra, etc.

TECHNICAL SKILLS AND INTERESTS

Programming: Java (5), **Python (5)**, C/C++ (3), SQL (4), HTML5/CSS (3), Scala (3), JavaScript (3), Kotlin (3), NodeJS (1), Perl (1).

Databases / ETL: MySQL, SQL Server, SQLite, MongoDB, Spark, BigQuery.

Big Data / ML: TensorFlow, Keras, Numpy, Pandas, **PySpark**, Flask, Seaborn, Matplotlib, ScikitLearn, **Tableau**.

Others: Android, Windows, Linux, **Google Cloud**, **AWS**, Excel, Postman, Colab, Jupyter, **Git**, Agile Practices.

*Scale: **1-5 = beginner to advanced***

- ❖ Experience in applying and using Data science tools, Machine learning algorithms, and Deep Learning
- ❖ **Supervised** - KNN, Linear Models, Naïve Bayes, Decision Trees, Random Forests, SVMs, Neural Networks **Unsupervised** – PCA, Manifold Learning, K-means clustering, GMM.
- ❖ Android development in Kotlin including SQLite, MVC, Services, Fragments, etc.
- ❖ Agile software development methodologies, algorithm design and analysis.

Hobbies/Interests: Machine Learning/AI, Deep Learning, Research, Spacecrafts, Wildlife, Yoga, and History.

EXPERIENCE

Towson University - Computer Science Department   *Towson, MD*

Research Assistant   *August 2018 – May2019*

- Performed independent research on classification of edible wild plants using transfer learning.
- Trained and fine-tuned RESNET50 model and handled data imbalance to improve model performance by 15%.
- Carried out **Exploratory Data Analysis** and solved data imbalance using SMOTE techniques.
- Used **Confusion matrix** and **ROC curve** to evaluate the model performance.

INSuRE - Johns Hopkins University -APL   *Baltimore, MD*

Machine Learning Lead   *December 2018 – May 2019*

- Actively involved in all phases of data science project life cycle including **Data Extraction, Data Cleaning, Data Visualization** and **building Models**.
- Used **Natural Language Processing (NLP)** to detect malicious websites and deployed the model to **AWS**.
- Integrated the trained **LSTM** model into the backend of a chrome extension for ease of usage.
- Visualized the data using **TSNE and SHAP** to find accurate correlation between features.

EXTRACURRICULAR ACTIVITIES

Cool Dictionary Project, *Group Leader*

- A smart dictionary for android to demonstrate android development skills in Kotlin.
- Used agile development techniques to lead the team of 4 members.
- Integrated TensorFlow lite model in the app for sentiment analysis using **NLP and TF-IDF.**
- The app used **RESTful API** from oxford dictionary.

CheckCasher Java application, *Solo Project*

- Developed a Java swing application for a business to keep track of check cashing customers using an embedded SQL (Apache Derby).
- Implemented required features using **object-oriented design** and a**gile methodologies.**
- Wrote complex **SQL queries** to store and extract data from the database.

LinkedIn Profile | Tableau Profile | Twitter Profile