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.

TECHNICAL SKILLS AND INTERESTS

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

Databases / ETL: MySQL, SQLite, MongoDB, Spark, BigQuery, **DynamoDB**, **GraphQ**L.

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

Others: Android, Windows, Linux, **Google Cloud**, **AWS**, **Docker**, Shell Scripting, Excel, Postman, Colab, Jupyter, **Git**, **Agile Practices,** Algorithm design & analysis, and Android development.

 Scale: 1-5 = beginner to advanced

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

EXPERIENCE

NEC Labs America- Machine Learning Department   *Princeton, NJ*

Software Engineer   *September 2019 – Current*

- Developed the production ready **backend** for a video recognition system on AWS using **Lambda**, ECS, **EC2**, DynaomoDB, SNS, SQS, Elemental Media Convert, **Kinesis**, API Gateway, AppSync, and Redis ElastiCache.
- Converted the existing single camera system to support multiple cameras with batch processing, python **multiprocessing** and threading modules.
- Saved more than **$10,000** of cloud cost per year by using cost efficient techniques and implementations for the backend.
- Working on **optimizing** the performance of action recognition model to further reduce GPU memory requirements.

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 using SQLite, MVC, Services, Fragments, etc.
- 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