K. ASHWIN VISWANATHAN

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DATA SCIENCE PROJECTS

Data Analysis & Visualization – HR Analysis Case Study `k`
Contributed Python notebook to Kaggle performing a detailed end to end Exploratory Data Analysis and Visualization

Predicting Airfoil Sound pressure using TensorFlow ⭕
Developed a Machine Learning model to predict the sound pressure in decibels from different sizes of NACA 0012 airfoils at various wind tunnel speeds and angles of attack

Detecting Peanut Flowers in a Peanut farm ⭕
Built a Machine Learning model to detect and count peanut flowers in a peanut bush in an effort to avoid manual counting by farmers.

Diagnosing Post Traumatic Stress Disorder (PTSD)
Received **$250** cash prize and **RIATA Rising Star** award for **developing** PTSD diagnosing model using Machine Learning

DATA SCEINCE EXPERIENCE

Dell Inc.   **Summer 2018**
Data Scientist Intern   **Texas, USA**
- Developed machine learning model that advises planners on whether a replenishment order for low volume part should be approved/rejected to **minimize** excess.
- **Improved** excess avoidance through machine learning by **45%**
- **Enhanced** the planner review process by **balancing** Excess & Customer Experience

Koch Industries Inc.   **Summer 2020**
Data Scientist Intern   **Wichita, KS**
- Helped **identify** reliable parts suppliers by implementing Text Analytical models in Python that extracts key terms from repair logs.
- Used **Neo4j** – a graph database to develop data models for **faster retrieval** of data
- **Developed** data processing and cleaning scripts using Python to be used across machine learning projects within Koch.

OSU BAE & USDA   **Fall 2017**
Image Processing & Database Intern   **OK, USA**
- Used Computer Vision algorithms to **detect** peanut flowers in peanut grass farm
- Wrote code to **interface** Microsoft Kinect mounted on a **RC cart** to **capture** images of peanut grass.
- Configured and installed **LAMP** (Linux Apache MySQL and PHP) stack for hosting a webserver

DATA ENGINEERING EXPERIENCE

Cognizant Technology Solutions   **2010 – 2015**
Associate – Data Engineering   **Chennai, India**
- Extensively involved in technical and business discussion with various portfolio owners on understanding the business requirements.
- Implemented data models **improving** data transformation and loading routines resulting in **faster** and **efficient** retrieval of key business metrics
- Conducted **several training sessions** for new hires and experienced developers on **efficient** Data Engineering practices

EDUCATION

Oklahoma State University	Dec 2021
PhD. Computer Science	
Oklahoma State University	Dec 2018
MS. Computer Science	
Anna University	May 2010
Bachelor of Engineering, Computer Science	

ACADEMIC ACTIVITIES & HONORS

- Awarded Top Tier merit scholarship of $5000
- Published 2 first author and 3 second author conference papers in peer reviewed conference publications
- Invited as reviewer for IEEE Symposium Series on Computational Intelligence – 2020, 2021
- Selected as both student and mentor in the competitive Neuromatch Academy bootcamp on Machine Learning and Computational Neuroscience

KEY SKILLS

Machine Learning
scikit-learn, numpy, pandas, Tensorflow, opencv, spacy, nltk, Neural Networks, XGBoost, Spiking Neural Networks, Natural Language Processing

Statistics
Data cleansing, Exploratory Data Analysis EDA, Regression, Resampling, Feature engineering, Forecasting, Regularization, Descriptive / Inferential statistical data analysis, Data Visualization

Programming
Python, R, Java, Processing 3.x

Database Programming
SQL, PL/SQL, MySQL, PostgreSQL

Web Programming
HTML, D3.js

Big Data
Apache Spark, Hadoop

ETL / Business Intelligence
IBM DataStage, Pentaho Data Integration, Informatica

Other
Unix, Shell Scripting, Git