AVINASH SHANKER

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Education:

The University of Texas at Arlington, Texas — **Aug 2018 – May 2020**
Master of Science in Computer Science — **GPA: 3.67/4.0**
Dual Specialization: Artificial Intelligence and Databases

National Institute of Technology, Karnataka, India — **May 2011 – Mar 2015**
Bachelor of Technology in Information Technology

Skills:

Programming Languages: Java, JavaScript, Python, SQL, Shell Script, PL-SQL, ProC, MongoDB, Node.js

Tools: Google Colab, Eclipse, Hadoop, Jupyter, Linux, Git, Jenkins, Jira, MATLAB, OpenCV, Android Studio, IntelliJ

Relevant Coursework:

Neural Network, Artificial Intelligence, Computer Vision, Data Mining, Big Data, Advanced Algorithms, S/W Testing

Experience:

Tesco (Bangalore, India) | **Software Engineer** (Java, JavaScript, Spring, MongoDB, PL-SQL, ProC) **July 2015 – July 2018**

- Developed RESTful Webservices using Java8 EE, Spring Boot, Angular.js and MongoDB with output as JSON files for generating real-time business insights. API dealt with Orders, Allocations and BOL request generated on warehouses and Stores in Oracle Retail Merchandising System (RMS). Used Postman for testing the Rest API
- Implemented order auto-reprocessing on RMS which reduced manual reordering on failed sets by 12%. RMS manages replenishment, stock purchasing and order fulfillment. Well versed in analyzing and creating, complex and optimized search queries in SQL. Worked on DB Triggers, PL-SQL and ProC package of RMS
- Developed multithreaded auto-ranging functionality integrating data across multiple databases in RMS which assists in ranging over 500,000 products to newly setup warehouses in Poland which reduced 7 man-hrs a week

Academic Projects:

Deep Privacy Face De-identification Using Generative Adversarial N/W (Python, OpenCV) **Dec 2019 – Jan 2020**

- To ensure anonymity for faces in public images used GAN to generate a highly realistic anonymous face mask
- MTCNN face detection to reconstruct de-identified face, implemented using TensorFlow, Keras, cv2, pandas

Designed Google Inception Convolution Neural Network For Image Classification (Python) **Nov 2019 – Dec 2019**

- Designed & trained a 3 layer densely connected CNN which was visualized using TensorBoard
- Deep learning network for image classification generated an accuracy of 86.4% on ideal hyperparameters
- Performed on CIFAR10 dataset which consists of 60,000 images using TensorFlow, Keras, cv2, pandas, NumPy lib

Big Data implementation on San Diego Supercomputer Center (Java, Scala and Hive) **Jan 2019 – Apr 2019**

- Implemented Mapper and Reduce program to multiply two extremely large sparse matrices in distributed mode
- Graph processing on gigantic dataset of nodes to access the connected components of a distributed graph

Data Analysis On Drug Consumption Dataset Using K-Means & Agglomerative Clustering **Mar 2019 –Apr 2019**

- Determined number of clusters required for dataset and reduced essentials using principal component analysis
- Performed K-Means and Hierarchical Agglomerative clustering to train, predict and contrast the performance of both models using confusion matrix (precision & recall) then visualizing the data with 92.3% accuracy in K-means and 79% in agglomerative clustering. Implemented using pandas, scikit, NumPy libraries in python

Android Application For Tesco Shopper Promotions (HTML5, JavaScript, Java and CSS3) **Jan 2018 – May 2018**

- Hackathon '16 at Tesco, developed an application which pushes location based customized promotions and deals to users when in vicinity of a Brick and Mortar TESCO store using pop-ups notifications

Achievements:

- TESCO **Star Performer Award** for innovation and dedicated work on BOL, allocation and transfer reject reprocessing among team of 20, this automation helped in reducing 14-man hrs/week taken by business team to do it
- TESCO **Value Award** for effectively coordination with Business Team in Europe for auto-ranging over 500,000 foundation data on products while setting up of multiple new stores in Czech and Poland. This was a critical as products cannot be ordered or sold otherwise, adding direct financial value to business