Naresh Kumar M

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E-portfolio | Academic portfolio





PROFESSIONAL SUMMARY

As an aspiring **Data Scientist**, I am currently enhancing my skills through the **Post Graduate Program in Artificial Intelligence and Machine Learning (PGP-AIML) at the Texas McCombs School of Business**. This program is equipping me with advanced knowledge in AI, machine learning, and deep learning, preparing me to transform raw data into actionable insights.

In addition to this, I am also **pursuing a Masters of Data Science from Daekin University**, which is set to commence in June 2024. This future endeavour underscores my commitment to continuous learning and my passion for data science.

With **3.5** years of experience as a Cloud IoT Full Stack Developer, I have developed a deep understanding of cloud IoT applications, frontend and backend applications, and Azure. My hands-on experience in managing IoT devices using Azure IoT hub, Azure functions, and MQTT protocol has provided me with a strong foundation in coding and problemsolving.

TECHNICAL SKILLS

Cloud Technologies : Microsoft Azure Cloud, Active Directory (AD), Azure Kubernetes Service (AKS), , ADLS, Blob

Storage, Azure Functions, App Services, Webapps, PostgreSQL, IoT Hub, Azure Databricks.

Operating Systems: Windows, Linux.

Networking : TCP/IP, SSL, HTTP/HTTPS, REST, MQTT/MQTTS.

Programming Languages : Java, Python, React JS, Node JS, R, C, C++.

Frameworks used : Spring boot, Hibernate, Maven, Express, Junit, Mockito, Bootstrap.

Databases : PostgreSQL, MySQL, Cosmos DB, Mongo DB.

IDEs and technologies : Eclipse, IntelliJ, Mosquitto MQTT, Spring Tool Suite, PGAdmin 4, Visual Studio, R studio,

Jupyter, Spyder, OpenCV, YOLO, TensorFlow, Keras.

Statistical Methods : Missing values and outliers, Univariate Analysis, Bi-Variate Analysis, Sampling, Bootstrap,

Cross Validation, Hypothesis Testing

Predictive Analysis : Regression, Machine Learning, Data Engineering or Feature Engineering - PCA, Dimensionality

Reduction

Classification: Decision Trees, SVM, Logistic Regression, Random Forest

Unsupervised Learning: K-Means Clustering, Hierarchical Clustering

PROFESSIONAL EXPERIENCE

IBS Software Private Limited

Jan 2023 - Current

Role: Senior Product Engineer

Responsibilities:

- Working as a Fullstack developer with responsibilities in Frontend (AngularJS), Backend (Spring boot Java) and managing databases (PostgreSQL and Oracle DB)
- Creating repository and version control using Bitbucket
- Automated building and deployment of applications using Jenkins and Spinnaker
- Integrated Apache Kafka and created producer-consumer services in Java microservices.
- Integrating Azure AD authorization for SSO between applications and storing and retrieval of files from Azure Blob storage

Cognizant Oct 2020 – Jan 2023

Role: Cloud IoT developer

Responsibilities:

Worked as Java developer, responsible for developing REST API using Spring boot, hibernate and deploying the
application in AKS (Azure Kubernetes services) and Managing database, creating functions and stored procedures
in Azure PostgreSQL.

- Managed IoT device using Azure IoT hub and Azure functions and Integrating Azure AD for authorization
- Storing and retrieval of files from **Azure Blob** storage and Monitoring and debugging application using **Grafana**.
- Connecting and controlling IoT devices from cloud MQTT pub/sub message using eclipse-paho and Spring boot.

EDUCATION AND INTERNSHIPS

- Masters of Data Science (Global) from Daekin University (Starting July 2024)
- Post Graduate Program in AIML at the Texas McCombs School of Business. (June 2023 Present)
- Bachelor of Engineering, ECE from St. Joseph's college of Engineering. (July 2016 Sept2020)
- Intern at Cognizant (Dec 2019 Apr 2020)
- Intern at RedInk (May 2020 Aug 2020)

CERTIFICATIONS

- Microsoft Azure AZ-900
- Microsoft Azure DP-900
- Fundamentals of Deep Learning for Computer Vision, by Nvidia's Deep learning institute
- Completed course on Machine and Deep learning from Green Technologies

PROJECTS

- Feature Engineering & Model Tuning: Employed supervised learning, ensemble modeling, and unsupervised learning techniques to build and train a prediction model for a semiconductor manufacturing company. Tools used: Python, PCA, Grid Search.
- Unsupervised Learning Project: Segmented cars into various categories by fuel consumption and other
 attributes, and classified a given silhouette as one of three types of vehicles using a set of features extracted
 from the silhouette. Tools used: Python, Clustering, Support Vector Machines, Principal Component Analysis.
- Ensemble Techniques Project: Built a machine learning workflow for a telecommunication company facing a customer churn issue. The workflow runs autonomously with a CSV file and returns the best-performing model to predict customer churn. Tools used: Python, EDA, Logistic Regression, Decision Trees, Random Forest, XGBoost, AdaBoost.
- Supervised Learning Project: Used popular classification techniques to predict patient conditions and potential
 customer conversions after extensive EDA and treatment of missing values and imbalanced data. Tools used:
 Python, Logistic Regression, Naive Bayes, KNN, SVM, Linear Regression.
- Applied Statistics Project: Analysed past tournament information for investment decisions and the status of various startups that participated in the Startup Battlefield. Tools used: Python, EDA, Data Visualization, Statistical Inference, Hypothesis Testing.
- License plate detector: Fetched licence plate details from the car's number plate. Tools used: Python,
 OpenCV, tesseractOCR

ACHIEVEMENTS, RECOGNITIONS AND PROFESSIONAL TRAINING

- Recognized as one of the top 20 papers on Artificial intelligence by Nokia.
- Completed Mini Projects for Autonomous car prototype using Raspberry PI, tracking system using GPS and GPRS,
 Poke yoke automatic dashboard manufacturing for Hyundai
- Computer vision through OpenCV, Machine learning and Deep learning
- Completed Artificial Intelligence workshop in SSN college of engineering.