

Vishnu Satheesh

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EDUCATION

MSc Business Analytics – National University of Ireland, Galway | Graduating: Jul 2021
Data Mining, Probability Models, Applied Statistical Methods, Optimization, Statistical Modeling, Database Systems, Big Data Integration, Decision Theory, Data Visualization (Tableau)

PGP Artificial Intelligence and Machine Learning – University of Texas at Austin | Graduating: Jun 2021
Python, Applied Statistics, Supervised Learning, Ensemble Techniques, Unsupervised Learning, Featurization, Model Selection & Tuning, Recommendation Systems, Neural Networks and Deep Learning, Computer Vision, NLP

BTech Industrial Engineering – University of Kerala, India | CGPA: 3.2/4 | Aug 2014- Jun 2018
Data Analytics, Advanced Operations Research, Applied Statistics, Supply Chain Management, Project Management, Simulation Modelling

EXPERIENCE

Omdena- A collaborative platform to build innovative AI solutions to real-world problems Mar 2021– Present.

Machine Learning Engineer: Collaborating with 45 AI Engineers from 23 countries to develop a Multi-Label Text categorization model to identify psychological violence within a text sent by the user through a conversational platform.

- Train a model with the given data and external violence data and categorize the text inputs into different categories.
- Give recommendations to the user with the percentage of risk of psychological violence based on text classification and develop a dashboard to analyze the data. The dashboard will measure the sentiment and show the topics that are being talked about to understand trends in real-time.
- **Tools:** Python, Tableau, Google Data Studio

Chainalytics - A leader in supply chain consulting, analytics, and market intelligence Jul 2018– Aug 2020

Data Analyst: Freight Market Intelligence Consortium team

- **Market Segmentation:** Managed a range of tasks including selecting features, optimizing classifiers, improving data collection techniques, and processing data.
- **Market Research:** Implemented projects involving semi-annual benchmarking of European and Russian TL (Full Truckload and Less Truckload) transportation rates for shipper companies by developing an OLS Regression model to identify specific characteristics influencing total freight cost.
- **Advanced Analytics, Automation and Reporting:** Incorporated technologies that integrate machine learning into the transaction-level data flows. Worked on the data validation and analysis, to convert the raw data to a constraint-governed mathematical model.
- **Process Automation:** Constituted as an integral part of the process automation team that brought down the time required for the data cleaning and modeling process from 20 hours to 3 hours.
- **Tools:** Python, Microsoft SQL, Tableau, SPSS, MS Excel, MS Access.

SKILLS

- **Machine Learning and Statistical Techniques:** Generalized linear models, Tree-based models, SVM, Naïve Bayes, Clustering, Neural Networks, Feature Engineering, Hypothesis & A/B Testing
- **Data Extraction / Visualization:** MySQL, Microsoft SQL, Tableau, Python (matplotlib, seaborn), MS Excel, MS Access, Alteryx
- **Programming:** Python, C++
- **Frameworks / Libraries:** Pandas, NumPy, SciPy, SPSS, Keras, TensorFlow

HONORS & ACTIVITIES

- Recipient of Central Sector Scheme Scholarship awarded by Ministry of Human Resource, Government of India.
- Chairman of Indian Institute of Industrial Engineering, College of Engineering Trivandrum Chapter (Jun 2017- Jun 2018).
- Presented paper at the International Conference conducted by CET School of Management on Vision 2020: Competing in a World of Sectors without Borders on the topic “*Analytics and Crowd Management Model.*”

PUBLICATIONS ([Medium](#))

Content Writer (Analytics Vidhya- A community of Analytics and Data Science professionals with over 33,000 followers)

- **Machine Learning Algorithms (Series):** A detailed three articles series on the most popular machine learning algorithms Logistic Regression, Naïve Bayes Classifier, KNN Classifier and Support Vector Machines.
- **Building Image Classifier using Keras and TensorFlow:** A comprehensive study of developing an image classifier using deep neural networks in Keras and TensorFlow.
- **Hyper Parameter Tuning (GridSearchCV Vs RandomizedSearchCV):** Discussed the implementation and working of the two popular hyper parameter tuning methods GridSearchCV Vs RandomizedSearchCV.
- **The Math Behind Monty Hall Problem:** Discussed the famous game and interpreted the influence of probability in the decision-making process.

PROJECTS ([Github](#))

- **Street View Housing Number Digit Recognition:** Recognized multi-digit numbers in photographs captured at street level and implemented image classification pipeline using deep neural network.
- **Customer Loan Prediction Model:** Predicted the likelihood of a liability customer buying personal loans to help the retail marketing department devise campaigns with better marketing to increase success ratio with a minimal budget.
- **Parkinson's Disease diagnosis using Ensemble Techniques:** Classified the patients into the respective labels using the attributes from voice recordings to diagnose Parkinson's Disease.
- **Jane Street Market Prediction (Kaggle Competition):** Implemented machine learning model to identify profitable opportunities and quickly decide whether to execute trades.
- **Concrete Compressive-Strength Determination using Hyperparameter Tuning:** Predicted the concrete compressive strength (MPa) for a given mixture under a specific age.
- **Amazon Electronics Recommendation Systems:** Developed a recommendation system that recommends at least five new products based on popularity and other metrics on e-commerce websites like user's history.
- **Vehicle Classification by Silhouette using PCA:** Classified a given silhouette as one of three types of vehicle, using a set of features extracted from the silhouette by training model using principal components.
- **Credit Card Fraud Detection (Kaggle Competition):** Anonymous credit card transactions labeled as fraudulent or genuine.
- **Predictive Analytics and Crowd Management Model for Railway Station (Undergraduate project):** Developed generalized behavioral model on crowd behavior, availability of possible routes and available time for the evacuation planning and decision making to reduce possible number of casualties during emergency scenarios.
- **US Census data Case Study:** A comprehensive study to determine factors for low/high income class amongst adult population in the US and predicting income class on attributes using classification algorithms.
- **Tableau Dashboards:** Created Dashboards spread across diverse topics. Active participant in *MakeOver Monday* visualization competition. [Tableau Public](#)

CERTIFICATIONS

- Microsoft Certified Azure Data Scientist Associate
- Tableau Desktop Specialist
- IBM Data Science Professional
- Machine Learning by Stanford University on Coursera
- Business Analytics by University of Pennsylvania on Coursera
- Project Management Principles and Practices by University of California, Irvine on Coursera
- Supply Chain Management by Rutgers State University on Coursera
- Managing Big Data with MySQL by Duke University on Coursera