

# Vishnu Satheesh

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## EDUCATION

**MS Business Analytics** – National University of Ireland, Galway | Graduating: Aug 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

## WORK EXPERIENCE

Jul 2018– Aug 2020

**Chainalytics** - A leader in supply chain consulting, analytics, and market intelligence

**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 transaction- level data flows. Worked on the data-validation and analysis, to convert the raw data to a constraint-governed mathematical models.
- **Process Automation:** Constituted as an integral part of the process automation team that brought down the time requirement for data cleaning and modelling 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

## PUBLICATIONS (*Medium:* <https://vishnusatheesh96.medium.com/> )

**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: <https://github.com/vishn96/>*)

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- **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 so as help retail marketing department to devise campaigns with better marketing to increase success ratio with 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. <https://public.tableau.com/profile/vishnu.satheesh1214>

## CERTIFICATIONS

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- 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

## HONORS & ACTIVITIES

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- 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).
- Received First Prize in Short Film Making Competition during TKM Film Festival 2018. [Link](#)
- 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.*"