

Venkatesh Moorthi Karunamoorthy

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PROFILE SUMMARY

- Highly enthusiastic and ever learning professional with 4.8 years of total experience and 2.8 years of experience in developing machine learning/deep learning based AI solutions and analytical projects
- Having experience working in customer facing environment with on-time deliveries and higher customer satisfaction.

ACADEMIC CREDENTIALS

- PG Diploma in Data Science** IIIT-Bangalore & UpGrad | **CGPA 3.86/4** Mar 2018 - Mar 2019
A comprehensive 11-month program taught by Industry experts and IIITB faculty; 7 case studies & projects; 400+ hours of academic learning & 30+ hours of industry mentoring
 - One of the top performers from the batch and consistently maintaining higher CGPA through all the courses
 - Consistently scored >90th percentile on all projects for data management, statistics, predictive analytics and big data courses
- B.Tech, Information Technology I** CGPA 7.1/10 2015
Easwari Engineering College | Anna University, Chennai
- 10+2 | HSC with 93.3%** 2011
- 10th | SSLC with 95%** 2009

KEY ACADEMIC PROJECTS

- Uber Supply Demand Gap analysis EDA:** Performed **exploratory data analysis** to identify the root cause of trip cancellation and non-availability of uber cabs. Recommended ways to close the supply demand gap
- HR Analytics employee attrition model:** Modelled the probability of attrition for employees using **logistic regression**. Identified the important variables that needs to be addressed in order to reduce the attrition rate
- Bank Marketing Analysis:** Modelled the probability of response of prospects and identified the 80% of the total responders at minimum cost possible
- Credit card Risk Analytics:** Built a **predictive model** using demographic and credit bureau data to identify credit card defaulter, identified factors affecting credit risk and assessed the financial benefit of the project

WORK EXPERIENCE

Analyst I Apps Prog, **BA Continnum India Ltd (Bank of America)**, Chennai Oct 2019- Present
Role: DL/AI Developer

- Built an **Information extraction tool** which extracts information from tabular contents present in scanned PDF documents which would potentially **automates transaction validation** process. **Table detection** and **column detection** models have been built using **Object detection** algorithm **YOLO V3** in **Keras** framework, **Row detection** algorithm was built using **OpenCV Image Processing** techniques and **OCR** was performed using **Tesseract** Engine.

IT-Analyst, **Tata Consultancy Services**, Chennai Apr 2018- Sep 2019
Role: DL/AI Developer

- Ticket **classification model** has been built to partially automates the **decision-making** process of the IT operation's service desk by predicting the CTI categories and assignment group of the ticket. **Classification model** has been built using **neural networks** and following are the tools/ packages used: **Python**, **Keras**, **Scikit-learn** and **NLTK**
- Email automation** for customer care has been achieved by developing a **classification model** for Spanish E-mails to identify the response category. **Neural network classification model** has been built using the following tools/packages: **Python**, **Keras**, **Scikit-learn** and **NLTK**
- A Prototype system for **railroad safety** has been built which detects the objects like car, truck, person from video feed and raise alert when an object comes into the proximity zone of the train/track. **Object detection** has been done using a state of art pretrained model **YOLO V3** and **track detection system** was built using **OpenCV**
- Digital signature verification** system has been built for comparing/verifying the signatures in image format which can be potentially used for verifying signatures in documents/checks against the reference signature. **One Shot learning** technique with **Siamese neural network** for image comparison has been developed using **Python** and **pyTorch**

- Developed an **Entity Extraction tool** which extract custom entities/information from unstructured text documents such as contract documents, resumes etc and convert it into a structured format. The system was developed using **Long Short-Term Memory recurrent neural network** with a **contextual based word embedding ELMO** in **Python** and **pyTorch**.
- Developed a solution for **deduplicating multiple format single page image documents** which potentially reduces storage requirements to a significant level. Used **image hashing** techniques with **Python** and **OpenCv**

Systems Engineer, **Tata Consultancy Services**, Chennai
 Role: Python Developer

July 2015- Mar 2018

- Built one of a kind **text extraction utility** that semi-automates the **underwriting process of the life and health insurance** business.
- Coordinated and mentored team of 3 to implement the project neither underwriter nor IT aware of the structure of the documents from which the data has to **text mined** from **800,000 documents** of 9 years for 120 different client's customer companies.
- Ensured continuous validation and fine tuning of the text extraction utility to maintain **85% above retrieval rate and 99% accuracy**
- Provided value adds which brought down the actual project schedule by 3 weeks
- **Saved 50% of monitoring effort** by developing an **automation tool** which **OCR** the documents across multiple servers 24/7 with minimal human intervention.

KEY SKILLS

- **Machine Learning:** Regression, clustering, KNN, SVM, Tree based models, ANN, CNN, LSTM-RNN, GRU-RNN, YOLO v3
- **Analytics Languages:** Python, R (Introductory)
- **Databases:** MySQL, PostgreSQL
- **Big Data:** Hive, Spark (Introductory)
- **Deep Learning Frameworks:** Keras, pyTorch (Proficient)
- **Visualization tools:** Tableau (Introductory)

ACCOLADES

- Best Team Award from Delivery head for successfully achieving the business goal with quality delivery and ahead of schedule
- On the spot award from Project Manager for coordinating and conducting on the floor events

CERTIFICATIONS

- Neural Networks and Deep Learning by deeplearning.ai on Coursera
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization by deeplearning.ai on Coursera
- Convolutional Neural Networks by deeplearning.ai on Coursera
- Structuring Machine Learning Projects by deeplearning.ai on Coursera
- Sequence Models by deeplearning.ai on Coursera