# Arunkumar Venkataramanan

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### **SUMMARY**

- I'm a ML Practitioner (also as ML Software Engineer and Data Scientist) have over 6 years of experience in AI/ML/DL/DS fields.
- I founded and manage DeepBrainz, A DPIIT Recognized AI Startup as Managing Director & AI Chief who's been solving various business & real-world problems across industries by Cutting-edge Technologies & State of the art AI in Computer Vision, NLP.

## **EXPERIENCE**

Founder, Data Scientist, ML Software Engineer

(Nov 2019 - Present)

DeepBrainz Technologies Private Limited, A DPIIT Recognized AI Startup Company

Bengaluru, India

- DeepBrainz Universal AI (DBZ uAI), DBZ uAI Consumer & DBZ uAI Enterprise
- (TensorFlow & PyTorch Ecosystems)
- Designed the Prototype for the core modules of DBZ uAI using Objectives, ML methods & (massive) Datasets
- **uXAI** for AI Explainability or Interpretability, **uFairAI** for Bias and Fairness in Data and Algorithms, **uGenAI** for Generalizability or Generalization of AI Learning, **uLabeler**, **uAnnotator** for Labeling and Annotation of Massive Training Datasets, **uGenerator**, uDataCollector for Creation & Acquisition of such Massive Datasets;
- Designed and implemented the Prototype for the high level modules of DBZ uAI using Objectives, ML methods & Datasets
- uAl Predictor, uAl Forecaster, uAl Learner for ML& Deep Learning, uAl Perceptor for Machine Perception, uAl Lingo for NLP & Understanding, uAl Recommender for Recommendation Systems, uAl Converser Bot for Conversational Al

Independent Machine Learning Practitioner & Consultant

(Jan 2015 - Oct 2019)

- Predicted demand for an online advertisement as RMSE 0.216 CV by designing, implementing LGB, Ridge models, MLPs, RNNs, on Avito's Ad datasets with pre-trained word vectors, DenseNet, vgg19 for feature extraction. (sklearn XGB TF Keras)
- Classified and forecasted the future web traffic for approximately 145,000 Wikipedia pages using RNN seq2seq, LSTM/GRU with attention by Time Series Analysis and Inference that evaluated on SMAPE as 35.48065 test score. (TF Keras)
- Recommended events to the users on Event Recommendation Engine datasets from Kaggle as 0.712 CV over mean Average Precision mAP @200 by building, training Logistic Regression, RF, k-Means models for feature transformation. (sklearn)

#### **PROJECTS**

Large Scale Deep Learning for Computer Vision & NLP as DeepBrainz Universal AI (TF2.O & PyTorch) (Jan 2019 – Nov 2019)

- DBZ uAl currently solves following few use cases using appropriate Objectives, ML methods & (massive) Datasets;
  - Automatic Disease Diagnosis, Autonomous Systems' Perception, Image Generation & Deepfake Detection; Toxicity Classification & Bias Detection, Gender Bias Resolution, Q&A system, Audio Recognition for Conversational AI;

## **EDUCATION**

Independent Coursework - MOOCs

(July 2013 - Present)

Coursera, Udacity, edX & Others			Stanford University & MIT		Others
Stanford University:	<ul> <li>Machine Learning</li> </ul>	CS50x HarvardX:	<ul> <li>Machine Learning</li> </ul>	<ul> <li>(MIT) Design</li> </ul>	•Google AI –
<ul> <li>Algorithms</li> </ul>	Engineer	<ul> <li>Computer Science</li> </ul>	<ul> <li>Mining Massive</li> </ul>	& <b>Analysis</b> of	Education Courses
deeplearning.ai:	Nanodegree (ND)	<ul> <li>Web Programming</li> </ul>	Datasets	Algorithms	•NVIDIA DLI
<ul> <li>Deep Learning</li> </ul>	<ul> <li>Data Scientist ND</li> </ul>	Google Cloud	<ul><li>CNNs for Visual</li></ul>	<ul> <li>Deep Learning</li> </ul>	Certifications
<ul> <li>TF in Practice</li> </ul>	<ul> <li>Data Engineer ND</li> </ul>	Specialization Tracks	Recognition	<ul> <li>Self-Driving</li> </ul>	<ul> <li>Kaggle Courses:</li> </ul>
<ul> <li>TF Data &amp;</li> </ul>	<ul> <li>Self-Driving Cars</li> </ul>	<ul> <li>Data Analytics</li> </ul>	<ul> <li>NLP with Deep</li> </ul>	Cars (MIT)	Data science
Deployment	Fundamentals	<ul> <li>Data Scientist</li> </ul>	Learning	<ul> <li>Deep</li> </ul>	DeepMind & UCL:
<ul><li>UTorronto Self-</li></ul>	• Azure ML	<ul> <li>Data Engineer</li> </ul>	<ul> <li>Information</li> </ul>	Generative	<ul><li>Advanced RL &amp;</li></ul>
Driving Cars	• Watson ML	• AWS ML	Retrieval	Models (SU)	Deep Learning

B.Tech. Information Technology, Anna University

(Aug 2009 - July 2013)

# **SKILLS**

- Programming: Expert in Python, Java, C++, SQL; Have Experience with C, C#, BASH/Shell script, R, MATLAB, JavaScript
- Libraries & Frameworks: Expert in TensorFlow & Ecosystem Keras PyTorch scikit-learn XGBoost LightGBM pandas NumPy SciPy IPython Matplotlib; Experienced in CUDA RapidsAI MXNet MapReduce Spark Hadoop Ecosystem (HBase Hive Pig Flume Sqoop Hume) OpenCV NLTK spaCy genism Caffe2 fastai Plotly ONNX; Familiar with Beam Kafka Storm Knime Neo4j
- Tools: Colab Anaconda PyCharm VS Code Excel Linux Git MySQL Tableau MongoDB Cassandra RStudio GCP AWS Azure

# AWARDS & HONORS

- Top 0.03% ranked 38<sup>th</sup>/113k & 49<sup>th</sup> Kernels Master and Top 0.2% ranked 226<sup>th</sup>/133k Competitions Expert on Kaggle.
- Won Medals on Kaggle: Top 9% & 298<sup>th</sup> /3497 in Booz Allen's 2019 Data Science Bowl, 62<sup>nd</sup>/468 in Google Al Inclusive Images Challenge, 74<sup>th</sup>/201 in Google Al Open Images 2019 Visual Relationship, 90<sup>th</sup>/521 in iMet Collection 2019 FGVC6.