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MEENAKSHI SUNDARAM (Sundar) VISWANATHAN

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PROFESSIONAL EXPERIENCE

DATA SCIENTIST

Siemens | Singapore | MAY 2019 - Present

Part of the data science team at the digitalization hub working on pilot projects in the field of advanced analytics and machine intelligence.

- Responsible for data exploration and analysis of unearthen operational insights, and to predict breakdowns in an Indonesian power plant. Time series analysis comprising unsupervised techniques like clustering, statistical similarity were employed for outlier detection.
- Working on computer vision modules aiming towards smart aquaculture involving object tracking, optical flow, and video streaming by taking advantage of deep learning approaches like DeepSORT, FlowNet.
- Developed an agent to extract key clauses from documents utilizing language models and few-shot learning.
- Automating the process of building knowledge graphs by extracting relevant entities and relationships from free text to enhance text analytics.

INTERNSHIP | MAY 2019 - AUG 2019

- Designed and developed a knowledge graph for a railway signalling system. This graph's primary aim is to conduct exploratory analysis over the signalling data.
- Performed survival analysis focusing on the air supply system failure, enabling predictive maintenance for a railway asset management and monitoring system.

CO-FOUNDER AND CTO

GetVu | Bangalore | JUL 2015 - MAR 2018

GetVu is a software solutions provider for smart glasses on a mission to drive innovation through the rapidly emerging technologies.

- PikVu - Developed the alpha version of smart glass augmented reality solution for warehouse workers. Responsible for modules involving Indoor Positioning System.
- RemoteVu - Built the client-side of GetVu's smart glass video calling application.
- Developed the software using Unity3D for GetVu's ARHeadset which utilizes Leap Motion Controller for interacting with augmented reality applications.
- Primary part of GetVu's R&D Team, responsible for projects like Social VR, EasyG, etc.

SKILLS

Programming Languages

Proficient: Python; Familiar: JAVA, C++, C, J2EE, PHP, C#, JavaScript, AngularJS, NodeJS.

Databases - Blazegraph, Neo4j, MySQL, SQLite, RethinkDB.

Libraries - Keras, PyTorch, TensorFlow, Scikit-learn, AllenNLP, spaCy, Hugging Face Transformers, NLTK, OpenCV, PCL, Lifelines, Statsmodels, PyOD, Vuforia.

Tools - Tableau, Android SDK, Unity3D, Android NDK, MATLAB.

Cloud - Amazon AWS, Google Cloud, MindSphere.

Others - Developed applications for Microsoft HoloLens, Google Tango, Leap Motion, Intel Recon Jet Pro, Sony SmartEyeGlass, ODG R6 & R7, Epson BT200, RealWear HMT-1, Oculus Rift and Google Cardboard.

SELECTED PROJECTS

Twiloc - Location Prediction using Language Variation | NUS

Twiloc investigates the feasibility of geographically locating Twitter users based solely on tweet content by understanding the dialect differences across geographies through deep learning techniques like LSTM, RNN.

DDQN Agent for Flappy Bird | NUS

Developed a reinforcement learning agent for side-scrolling games like FlappyBird, PixelCopter. This project is an implementation in Keras and OpenAI Gym of the Double Deep Q-Learning algorithm.

* To know more about all my projects, please visit [my website](#).

SELECTED PUBLICATIONS

- "Entity Linking: A primary NLP task for Information Extraction", Analytics Vidhya, 2019.
- "Deep Learning for Survival Analysis", Towards Data Science, 2019.
- Meenakshi Sundaram V, Shriram K V, Santhosh C, and Bharathkumar RGK, "An Augmented Reality Application with LEAP and Android", Indian Journal of Science and Technology, 2015.

EDUCATION

Master's in Artificial Intelligence

School of Computing

National University of Singapore

2018 - 2020

Bachelor's in Computer Science

School of Engineering

Amrita Vishwa Vidyapeetham

2011 - 2015

ACHIEVEMENTS

- Associated with **River Accelerator II** San Francisco | SEP 2015 - FEB 2016
 - Associated with **LEAP AXLR8R** San Francisco | FEB 2014 - MAY 2014
 - Exhibited GetVu's AR Headset at **Augmented World Expo 2014**
 - Presented PikVu at **IEEE Digital Senses Initiative Conference 2015**
- Campus Ambassador **HackerRank** Amrita University | 2014 - 2015

AWARDS

- Outstanding Student Award 2015 Dept. of Computer Science, Amrita
- TIDE Innovation Award 2015 Amrita TBI

SELECTED COURSES

Graduate

- Neural Networks and Deep Learning
 - AI Planning and Decision Making
 - Knowledge Discovery and Data Mining
- Data Fitting and Optimization Algorithms
- Text Mining
- Uncertainty Modelling in AI
 - Visual Computing

Online

- Deep Learning Specialization Coursera | deeplearning.ai
 - Machine Learning Coursera | Stanford
- Data Visualization Specialization Coursera | UCDavis
 - Computer Vision Udacity | Georgia Tech
- Web of Data | Coursera | EIT Digital