Sailesh GANESHAN

Senior Engineer - Data Science

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Developer with more than 8 years of experience, over 3 years of exposure working with Deep Learning and Machine Learning techniques. Knowledge working with Computer Vision & NLP use-cases, exposure in research with EDA on healthcare data, skilled in Agile. Presently, part of Cognizant's Platform Engineering Group as the Lead for Enterprise AI.

Bibliophile , Kaggle beginner, Python enthusiast, self-learner.

Competencies

Programming	Python, R (Basic), Javascript (Basic)
Frameworks	Keras, PyTorch (Basic), TensorFlow (Basic), Rasa, SpaCy, Node.js (Basic)
IDEs	VS Code, Sublime Text
Operating Systems	Windows, Debian Linux
Cloud	AWS (Fundamentals)

Professional Experience

Present – November 2016 — Senior Engineer-2, Cognizant, Bengaluru, IN

- Part of the Platform Engineering Group responsible for building a Deep Learning platform with focus on the modeling experience for Data Scientists
- Explore, experiment and evaluate templatizable use-cases using Keras & Tensorflow, that could be catered as a pipeline (*Build - Train - Local Predict - Deploy*)
- Lead for Chat Bot building pipeline development and channel integration based on Rasa Open Source framework
- Engage with stakeholders for Product Demos & interact with senior leadership in Feature Design discussions, Sprint Acceptance Demos & Product Roadmap discussions

VS Code | Sublime Text | OrientDB | GitHub | Jenkins

September 2016 – July 2015 — Data Scientist, Oxyent Medical/Tech, New Delhi, IN

- Knowledge mining from historic traditional medicine data. Insight generation through EDA
- Data-driven hypothesis formulation, visualization and subsequent interpretation of data to validate the results with the interpretation based on Ayurvedic guidelines
- Co-author of research publication
- Preliminary EDA of Cardiovascular patient reports (Anonymized) to identify various Risk Factors

R-Studio | MySQL

April 2015 – July 2014 — Intern, Philips Innovation Campus, Bengaluru, IN

- Worked on a problem on Predictive Analytics - for inventory stock based sale prediction
- Completed a POC on Sentiment Classification with continuous data enrichment & active learning from Twitter feed

R-Studio | MySQL

August 2012 – September 2008 — Senior Software Engineer, IBS SOFTWARE SERVICES, Thiruvananthapuram, IN

- Involved in development & continued support of Airline booking platform for flysaa - South African Airways

Eclipse | MySQL

Publication

Big data analysis of traditional knowledge-based ayurveda medicine — Oct 2018, Vol. 3 - Issue 5

Progress in Preventive Medicine
Harpreet Singh, Sapna Bhargava, Sailesh Ganeshan, et. al.

LaTeX | R | MySQL | R-Studio

Projects

Integration of Automated Machine Learning — Cognizant (2019)

An open-source framework known as **Autokeras** was intergrated into the platform that is inspired by the meta-learning publication on Neural Architecture Search (NAS). The framework was successfully integrated into the platform to perform NAS for Image Classification problems.

Autokeras

Integration of model metrics visualization service — Cognizant (2018)

An open-source visualization service known as **VisualDL** was intergrated into the platform that would provide visualizations to monitor model training performance in real-time. It also enables support for visualizing intermediate image representation learned by ConvNet layers during the training. Enabled as a Keras Callback.

Keras VisualDL

Insulator Health Classifier using Convolutional Neural Nets — Cognizant (2018)

A Convolutional Neural Network based Multi-class image classifier to detect the health of a given insulator. The model used insulator images as input that were labelled into mutliple classes based on their condition. The trained model was exported as both *.hdf5* and *.pb* that could be served as consumable REST Endpoint.

Keras Tensorflow

Integration of RASA based chatbot framework — Cognizant (2017-18)

Rasa, an open-source framework was succesfully intergrated into the platform to enable chatbot building. The support extend from NLU based model training to Dialogue (Stories) based conversation learning. This served as the backend framework which empowered the platform with bot building capabilities.

Rasa-Core

Context-aware Q&A Chatbot using Microsoft Bot Framework with RASA — Cognizant (2017)

Proof of concept for a Q&A Bot build using Microsoft Bot Framework that would engage in a question-answer conversation with the user on a specific domain/topic of interest while preserving the context of conversation. RASA was substitued as the backend NLU framework in place of Microsoft's LUIS.

Node.js Microsoft Bot Framework Rasa-NLU

Academics

2015 Masters in Machine Learning & Computing, Indian Institute of Space Science & Technology, , Dept. of Space, Thiruvananthapuram | CGPA **7.96 / 10.0**

2008 Bachelors in Computer Science Engineering, P.A.Aziz College of Engineering & Technology, University of Kerala, Thiruvananthapuram | CGPA **6.76 / 10.0**

Certifications

2019 TensorFlow in Practice Specialization (Coursera)
2017 Neural Networks and Deep Learning (Coursera)
2017 Exam 475 : Designing and Implementing Big Data Analytics Solutions
2017 Exam 773 : Analyzing Big Data with Microsoft R
2017 Exam 774 : Perform Cloud Data Science with Azure Machine Learning
2016 Machine Learning by Andrew Ng (Coursera)

Languages

English ●●●●●
Malayalam ●●●●●
Tamil ●●●●○
Hindi ●●●○○
Kannada ●○○○○

Interests

- Football
- Strategy & Simulation Games
- Violin
- Non-fiction Titles
- Photography