# Sailesh Ganeshan Senior Engineer - Data Science

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☑ Hackerrank ☑ Kaggle

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♥ Bengaluru, IN

Developer with 8.5 years of overall experience, more than 3.5 years in Data Science, Machine Learning and Deep Learning. Has ample exposure to multiple of data science problems, good understanding of EDA approaches.

Ability to work in fast-paced environments with clear deliverables and timelines, self-driven and Agile ready. Presently, part of Cognizant's Accelerator for Products.

Bibliophile, Self-learner, Kaggler.



## COMPETENCIES

Programming Python, R (Basics)

Keras, Tensorflow, PyTorch (Basics), SpaCy, Rasa Frameworks Tools & Platforms Git, Docker, Amazon SageMaker, Azure ML

Operating Systems Windows, Debian Linux

Cloud AWS



## PROFESSIONAL EXPERIENCE

## Present November 2016

## Senior Engineer-2, COGNIZANT, Bengaluru, IN

- > Part of Machine Learning Group focused on developing reusable, generic solutions for the Cognizant Accelerator products.
- > Formerly 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
- > Research, followed by development of POCs to introduce newer ideas towards the larger goal Keras SpaCy Rasa OrientDB GitHub Jenkins

## September 2016 July 2015

### Data Scientist, OXYENT MEDICAL/TECH, New Delhi, IN

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

R GGPlot MySQL

## April 2015 July 2014

## Project Intern, PHILIPS INNOVATION CAMPUS, Bengaluru, IN

- > Predictive Modeling for inventory stock based sale prediction
- > POC on Sentiment Classification with continuous data enrichment & active learning from Twitter feed R Java MySQL

## August 2012 September 2008

## Senior Software Engineer, IBS SOFTWARE SERVICES, Thiruvananthapuram, IN

> Involved in development & support of Airline booking platform for flysaa - South African Airways Java MySQL

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#### 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.

MySQL R-Studio



#### CONTENT BASED EMAIL CATEGORIZATION - POC

COGNIZANT (2020)

A proof of concept developed to automate the e-mail categorization based on content. The solution is built using SpaCy Text Categorizer at its core. The training data was sourced from multiple mailboxes within the organization, anonymized, curated and cleaned. The Text Categorizer is based on Conv1D based architecture. The trained model could be deployed as a module which would source the content from e-mails and categorize them appropriately. The classifier response would then be used to categorize the mailbox intelligently for the end user.

SpaCy Jupyter

#### INTEGRATION OF AUTOMATED MACHINE LEARNING

COGNIZANT (2019)

An open-source framework known as **Autokeras** that is inspired by the meta-learning publication on Neural Architecture Search (NAS) was integrated into Cognizant's AI platform. The framework presently supports meta-learning for Image Classification problems.

Autokeras

#### INTEGRATION OF MODEL METRICS VISUALIZATION SERVICE

COGNIZANT (2018)

An open-source visualization service known as **VisualDL** was integrated into Cognizant's AI 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 custom callback in Keras.

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 multiple classes based on their condition. The trained model was exported as both .hdf5 and .pb that could be served as a consumable REST Endpoint.

Keras Tensorflow

### INTEGRATION OF RASA BASED CHATBOT FRAMEWORK

COGNIZANT (2017-18)

Rasa, an open-source framework was successfully integrated 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 back-end framework which would empower 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 substituted as the back-end NLU framework in place of Microsoft's LUIS.

Node.js | Microsoft Bot Framework | Rasa-NLU

# ACADEMICS

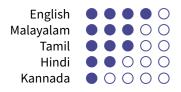
- 2015 Masters in Machine Learning & Computing, Indian Institute of Space Science & Technology, , Dept. of Space, Thiruvananthapuram | CGPA **7.96 / 10.0**
- 2008 Bachelors in Computer Science Engineering, P.A.Aziz College of Engineering & Technology, University of Kerala, Thiruvananthapuram | CGPA 6.76 / 10.0

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# **CERTIFICATIONS**

- 2016 Machine Learning by Andrew Ng (Coursera)

# LANGUAGES



# **♦** INTERESTS

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