

GANESH RAJASEKAR

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📍 Waterloo,Canada

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EXPERIENCE

Senior Software Analyst

Schneider Electric India Pvt. Ltd.

📅 July 2015 – July 2018(3yrs) 📍 Bangalore,India

- Design and implement SAP ERP Based architecture solutions to support software lifecycle management needs of thousands of customers and other interconnected legacy systems
- Worked as programmer in developing frontend GUIs,SAP reports, interfaces, enhancements, smart forms,scripts and creating middlewares interacting with multiple non SAP systems.

Machine Learning Engineer

Graduate Research Intern

SSIMWAVE Inc.

📅 June 2019 – Present

📍 Waterloo,Canada

- Working with the team on the training and evaluation of Deep Neural Network models for assessing source video quality
- Developed python scripts and established training database and deployed End-End Pipeline of machine learning solutions on cloud platforms such as Azure ML Studio and Sagemaker.

SKILLS

Programming:

-Python - C - C++ - Java - ABAP - HTML - CSS - JavaScript(ES6)
- ReactJs - Django

Ancillary Technologies:

- Keras - Tensorflow - Pytorch - Bootstrap - PostgreSQL - Firebase - PySpark - Databricks - GCP AutoML - Amazon Sage-maker - Azure Cloud Platform - Unix commands and bash scripting

EDUCATION

Master of Engineering, University Of Waterloo

Electrical and Computer Engineering(Software)- 91%

📅 Sept 2018 – Present

Bachelor of Technology, VIT University-India

Electronics and Instrumentation Engineering - 90.4%

📅 July 2011 – May 2015

COURSEWORK

- **GRADUATE:** Methods and Tools of Software Engineering,Multithreaded Programming,Data Knowledge and Modelling Analysis,Algorithms Design and Analysis,Pattern Recognition,Text Analytics,Introduction to Machine Learning
- **UNDERGRADUATE:** Neural Networks and Fuzzy Logic Control– Data Structures and Algorithms-Computer Architecture-Database Systems-Tools of Software Engineering-Robotics Control systems-Sensor and Signal Conditioning

HONORS & AWARDS

- Received Best Graduate Engineer Trainee Award in Schneider Electric India and was awarded by top level management for excellent performance at work
- Team leader of the team which won Phase-I Texas Instruments India Analog design contest-2014.The team was one among the 19 projects selected over 1700 proposals across India.
- Awarded Student Achiever Award by VIT University during 2014 -15 academic year on the basis of exemplary academic performance.

PROJECTS

Detecting Text Similarity Using BERT

- The problem addressed in this project is the Kaggle Competition of Quora Question pairs.Built an end-end pipeline model by using sentence embeddings from GloVe,Fastext and Word2vec as three channels of a CNN siamese Network and extracted features and concatenated BERT sentence embeddings to perform a 3-DNN layer classification task.
- The results were impressive and achieved close to 83% accuracy comparable in performance to top 20% leaderboard scores.

Toronto Crime Pattern Analysis

- Developed a unsupervised learning approach to identify violent and non-violent neighbourhoods in the city of Toronto, while providing a better visualisation for the public. The unsupervised approach of clustering using BIRCH and K-Means was used using major crimes that have occurred in the past.

Sentiment Analysis

- Used bag-of-words, pre-trained Embedding and simple as well as bi-directional LSTM techniques for Sentiment Analysis.

Automatic Waste Segregation using Google Vision API

- As part of EngHack 2019 developed a model to classify garbage images into type of waste for segregation.A working software was built taking the help of Google Vision API.

Design of Low cost Wearable Device

- As part of Texas Instruments Analog Design Contest a low cost wearable device was made using neural networks.A classifier based on neural network was trained to map gestures to physical human tasks.
- The Project was selected as one of the National Winners in India among 1700 proposals.

Website for Text Summarization and Question Answering

- State of the art BERT based pretrained text summarizing and question answering models were incorporated in the backend to perform these tasks.