Arshia Sathya Ulaganathan

Machine Learning Engineer

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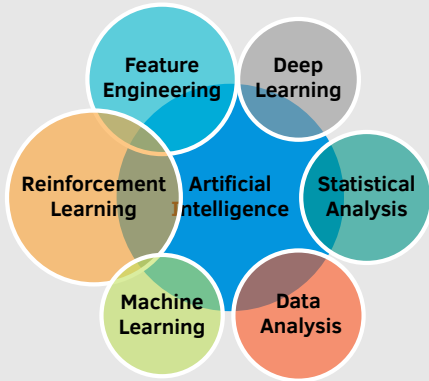
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⬤ Arshiasathya

Technical Skills ——

Overview

Programming&Libraries

(Level Of competency)

Python • Tensorflow • Keras • Scikit-learn

CNTK • Theano • Pytorch

OpenCV • Chainer • Caffe

Education ——

MSc., Computer Science (GPA: 3.4)
Specialization: Machine Learning
The University of Winnipeg
2014 - 2017 | Winnipeg,Manitoba,Canada

BEng.,Electronics&Communication (GPA: 3.6)
Karpagam University
2009 - 2012 | TamilNadu, India

Interests

Self motivated, hard working, experienced machine learning engineer. Interested in exploring new dimensions of AI application and solving the real world problems using the cutting edge technology in AI.

Experience

April 2018 - Present — **Jr.Machine Learning Engineer** — **Lavily/24-7 Intouch**

Projects: Email template recommendation engine
- Tool that assists customer care agents to select the proper template for response by analyzing customer emails.
- The goal of project is to reduce the average handling time ticket and improve the customer satisfaction.

Conversational AI assistant:
- Conversational AI assistant helps the customer care agents handle multiple chats efficiently.The purpose of this project is to increase the concurrency of the chat per agent
- Automated generic chat flow with the indication for human assistance when the bot is in need.

Intent and Sentiment classification:
- Narrow's down the path for template sugesstion for response
- Sentiment of the email or message is used to select the responses, this helps to add proper verbage in the responses.

Voice emotion detection(PoC stage):
- This project tracks how sentiment varies thorough out the call.
- Helps team leads find out when and which agent needs help from them to handle critical customer calls.
- **Langugage and Libraries used:**Python, Jupyter Notebook, Tensorflow, Keras, PyTorch, Scikit-learn, Numpy, Pandas, PyAudioAnalysis, Librosa, Matplotlib, Seaborn, Scipy, Rasa, Flask.
- **Algorithms or Models used:**CNN, LSTM, RNN, GRU, Transformer, Encoder Decoder, Capsule Network, Siamese n shot learning.

Software development and DevOps Experiences:
- Experienced in Agile methodology, Bitbucket as version control.
- Experienced with Amazon web service(aws) Kubernetes, Docker cloud sources

Jan 2016 - Apr 2016 — **Graduate Teaching Assistant** — **The University of Winnipeg**
- Created tutorial materials for software project management course
- Marked assignments and exams
- Invigilated exams

May 2015 - Apr 2018 — **Sales Associate** — **The Home Depot**
- Inventory Assessment
- Product Knowledge
- Assited customers with purchase
- Point of sale transactions

Research

2015 - 2017 — **MSc. Candidate, Graduate Research Assistant** — **The University of Winnipeg**

Thesis: Granular Methods in Automatic Music Genre Classification: A Case Study
- Proposed and implemented **algorithm** Tolerance Class Learner (TCL)2.0 for classification.
- Worked on feature selection and feature reduction methods for classification
- **Tools**: R, Python, scikit-learn, pandas, numpy.

Publications

Ulaganathan, Arshia Sathya, Ramanna, "Granular Methods in Automatic Music Genre Classification: A Case Study" in 2019 Journal of Intelligent Information Systems, pp. 85-105, J. Intell. Inf. Syst., 2019.