 

**Professional Summary**

* 11+ years of IT experience with 3+ years in Data Science in the domains **Banking, Insurance, Capital Market and Healthcare**
* Hands-on experience in solving business problems using advanced analytical and data science techniques such as **Deep Learning, Ensemble Learning and other statistical techniques using Python**
* Proven track record in **Delivery Management, Test Consulting, Stakeholder Management, Multivendor Engagement, Recruitment, P&L Management, Team Building**
* Proficient in **analytical skills, problem solving, interpersonal, fast-learner, resourceful, smart worker, motivated and result-oriented**



**Sivakumar Rajendran**

**Sr. Associate – Data Science**

**M: +91-8220877711**

**Leverage LSTM to build the Word Embedding Language Model to detect and report the Adverse Event from Contact Center conversation** [June 2018 – Ongoing]

* Overall workflow effort increased by 64% in extracting the Call Center conversation and classifying it under the category ‘Adverse Event’ and ‘Others’ Adverse Event reporting is regulatory requirement and this project helps in improving the turnaround time and meet the regulatory compliance on time.
* Phase 1 - fast.ai library was leveraged to build the Word embedding language model using Deep Learning LSTM and it was evaluated against the RF base model. Phase 2 – Model building is underway to build the complete language model using PyTorch
* Technical Stack: **Amazon EC2, Python**
* Libraries/ Framework/ Machine Learning Algorithms: **Jumanpp (Japanese), fast.ai, PyTorch, Random Forest, Deep Learning (LSTM)**

**Character extraction using Tesseract OCR API to improve the accuracy and reduce the cost** [Nov 2018]

* Existing product was migrated to a web platform that helps in improving the **accuracy by 20%** and cut down the **product cost to 0%**
* **Technical Stack: Tesseract API [Google], Django Framework [Python]**
* Libraries/ Framework/ Machine Learning Algorithms: **Jumanpp (Japanese), fast.ai, PyTorch, Random Forest, Deep Learning (LSTM)**

**Using NLP and Deep Learning (RNN) to tag the Medical codes and prevent Payment Inconsistencies** [Oct 2017 – May 2018]

* This is a Proof-of-Concept (POC) project built for a leading US Health Insurer
* Doctors and Hospitals submit the Claim forms UB92 and HCFA with Insurance companies to receive the payment. During transcription, quantifiable error been happening in Medical code tagging and this can be found only during the later stages ie., during the Medical Record Validation stage. Delay in this validation time resulted in increased transaction cost.
* Model was built using the **Deep Learning and NLP techniques** to scrap the data from the Claims forms, extract the information and tag the Medical coding based on the information found in these forms. Post Medical code tagging, payment information was evaluated against the related features by using the **Ensemble** Methods
* Technical Stack: **Amazon EC2, Python**
* Machine Learning Algorithms – **Logistic Regression,** **Random Forest, Deep Learning**

**Effective Claims assignment by using the Clustering algorithms** [May 2016 – June 2017]

* Objective of this project is to digitalize the Claims workflow of a leading US Insurer. This Claims Automation project has several segments ranging from Claims Origination to Claims Closure.
* Machine learning model has been employed in the stage of Claims Processing and Payment Approval by analyzing the various attributes taken from the Claims submission forms. Claims Severity was calculated as the first step and then based on the calculated severity, developed Machine learning model routes the Claim to the right authority level for faster payment (or) route the claim for additional information.
* Initial model was built using the stacking model comprising of Random Forest and Clustering methods. Later, Deep Learning was leveraged and this helped to improve the Sensitivity and Specificity of the model.
* Machine Learning Algorithms – **Random Forest, K-Means, Deep Learning (NN)**

**Certifications & Competencies**

**Key Projects and Responsibilities**

**Certifications**

* Deep Learning Fundamentals

Certified by CognitiveClass.ai

* Intro to Python for Data Science

Certified by DataCamp

* Python for Data Science

Certified by CognitiveClass.ai

* Machine Learning with Python

Certified by CognitiveClass.ai

* Data Visualization with Python

Certified by CognitiveClass.ai

* Project Management Professional (PMP)

Certified by PMI

**Tools & Techniques**

* Python
* Machine Learning – Neural Networks, Regression, Classification, Clustering, Decision Trees, Random Forests

**Achievements**

* L&D Account of the Year 2014 (Cognizant QEA, North America)
* Operational Excellence Q4 2015 (Cognizant QEA, North America)
* Delivery Excellence - Q3 2013 (The Hartford, North America)
* Best Project of the Year 2009 (Commonwealth Bank of Australia, Australia)

**Master of Science (Computer Science)**

School of Mathematics,

College of Engineering, Guindy, Chennai

**Professional Career**

**Cognizant Technology Solutions, India**

May 2010 – Sep 2011 &

Nov 2016 – Present

**Cognizant Technology Solutions, North America**

Sep 2011 – Oct 2016

**HCL Technologies, India**

May 2007 – May 2010

**Education**