

JALLA KRISHNA SWAMY

Data Scientist, Cigna US Health Insurance Marketing Insights

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SUMMARY

Deep Learning certified Data Scientist with 2.5 years of experience in leveraging Machine learning capabilities for both B2C and B2B businesses with deep understanding of business transition towards data driven being supported by Artificial Intelligence ecosystem. Have Master's degree from IIT Bombay with proficient knowledge in Deep Learning, Machine Learning, NLP, Statistics, Python, PySpark and AWS.

WORK EXPERIENCE

Data Scientist, Cigna US Health Insurance Marketing Insights/ Analytics Saves at work Mar'19-Present

Cigna Customer Segmentation Predictive Model

- Developed multiclass classification model to identify 300M US population into 8 unique segments.
- Streamlined Cigna in-house marketing strategy by personalizing Customer Engagement based on segments in conjunction with key business driving metrics working closely with Profitability team.
- Prioritized action plan for resource allocation to focused segments for Retention and Acquisition Campaigns.
- Automated model building process completely using AWS EMR with PySpark Pipeline Strategy.
- **Algorithms & Tools:** PySpark, AWS, EMR, Lasso, PCA, Random Forest

Cigna Supplements Benefits Predictive Model

- Developed a predictive model to identify late Medicare Enrollments among Senior Citizen prospects.
- Prioritised Cigna Supplemental Benefit campaign of 12.5M by enabling effective dollar allocations.
- **Algorithms & Tools:** Python, Docker, AWS SageMaker, EC2, Gradient Boosting.

Senior Analyst, Cigna US Health Insurance Marketing Insights/ Analytics Saves at work Feb'18-Mar'19

Decision maker's Identification in US Households

- Designed framework to identify 24.6 M healthcare decision makers and influence them in Campaigns.
- Developed robust Machine Learning model by extracting business impact attributes and insights.
- Spearheaded Acquisition and Retention campaigns in decreasing 50% Cigna Marketing spends.
- Recommended proposals to address assumptions associated with current strategy for next Gen. model.
- **Algorithms & Tools:** Python, AWS, EC2, Random Forest, IV & WOE, SelectKBest, VIF, RFECV

B2B Lead Management Predictive Model

- Designed a predictive model to identify successful B2B prospects with no Campaigns in O500 band.
- Collaborated with B2B campaign team for enhancements using Cigna's relative performance metrics and prioritised B2B campaign of 0.5M O500 band Businesses.
- **Algorithms & Tools:** Python, Random Forest IV & WOE, SelectKBest,

Software Developer, Policyboss.com

Jul'16-Jun'17

- Part of the team responsible for developing Web Application in ASP.NET MVC Framework and C# which compares insurance products provided by leading insurance companies in the arena.
- Dedicated to CAR insurance and Bike insurance module where the former fetches highest revenues.
- Responsible for third party integration using RESTful web services and web APIs.
- Created RESTful API endpoints for mobile application clients to get quotes.
- Catered expeditiously on spot glitches to deliver high quality UI working closely with Marketing Team.

SKILL SET

- **Programming languages:** Python, PySpark, SAS, Core Java, C#, SQL, R, MS Office.
- **Frameworks & Packages:** Tensorflow, Keras, .net MVC.
- **Algorithms:** CNN's, RNN's, LSTM, GRU, Neural Networks, SVMs, Random Forest, Gradient Boosting, XG Boost, Adaboost, Decision Trees, Logistic Regression.
- **Key Courses:** Deep Learning, Machine Learning, Satellite Image Processing (Basic & Advance), Interoperability and Knowledge Discovery, Data Analysis in Geospatial applications, Applied Mathematics, GeoInformatics.

DEEP LEARNING PROJECTS

- Neural Networks and Deep Learning by deeplearning.ai on Coursera. Certificate earned on January 4, 2018.
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization by deeplearning.ai on Coursera. Certificate earned on January 7, 2018.
- Structuring Machine Learning Projects by deeplearning.ai on Coursera. Certified on January 31, 2018
- Convolutional Neural Networks by deeplearning.ai on Coursera. Certificate earned on December 30, 2018
- Sequence Models by deeplearning.ai on Coursera. Certificate earned on March 26, 2019.
- **Key Projects:** Autonomous Driving Application - Car Detection, Face Recognition for Emotion identification, Art Generation with neural Style Transfer, Neural Machine Translation using Attention Mechanism, Music Generation using LSTM, Trigger Word Detection using GRU, Word Analogies identification using Word Embeddings.

ACADEMIC PROJECTS

Master Thesis: Machine Learning for Oceanic Chlorophyll Estimation Jul'15-Jul'16

- Designed **Random Forest Regression Model** to predict Chlorophyll from **GIOVANNI NASA MODIS** data.
- Estimated Chlorophyll from MODIS water leaving radiances over selected wavelengths at East Coast of India.
- Evaluated using **RMSE**, Co-efficient of Determination (**R²**) and Scatter Plots on Validating Dataset.

M. Tech. Seminar: Reconstruction of 3D object using Multi-View 2D images Feb'15-May'15

- Reviewed and comparatively analyzed existing algorithms for Reconstruction of complex 3D objects.
- Studied Tangent Plane Estimation, Moving Least Square Interpolation to reconstruct surface from point cloud

Fuzzy C-Means Image Classification Feb'15-Apr'15

- Implemented unsupervised learning using **Fuzzy C-Means** to classify land-use/land cover in satellite images.
- Estimated the areas of each segmented clusters to quantify land-use and land cover in the image.

Analysis of Spatial Interpolation Methods Using R Sep'14-Oct '14

- Carried out interpolation using **Inverse Distance Weighting**, **Linear Trend Surface** and **Krigging** methods.
- Analyzed the variations in the outputs of individual models by changing the model input parameters

EDUCATIONAL QUALIFICATION

Examination	Institute	Year	CPI/%
M.Tech	IIT Bombay	2016	8.23
B.Tech	University of Allahabad	2013	73.93
XII	Gowtham Junior College, Vijayawada	2009	94.80
X	KommaReddy Talent School, Bantumilli	2007	89.99

ORGANIZATIONAL EXPERIENCE/INTERNSHIP

Internship: Design of Dual Frequency Microstrip Patch Antenna, DRDO Bangalore May'12- Jul'12

- **Dual specifications:**-Frequencies: **2.8, 3.36**(GHz), Bandwidths:**50,150**(MHz), Return Losses: **-19,-19.5** (db)
- **Implemented** Co axial waveguide feeding to ease **impedance matching** and reduce **back radiation**.
- **Future Scope:** Applications in **Worldwide Interoperability for Microwave Access (WIMAX)** in S band

POSITIONS OF RESPONSIBILITY

Company Coordinator, Placement Cell, IIT Bombay Apr'15-Jun'16

(Ex. Department Placement Coordinator (D.P.C), University of Allahabad (Aug'12-Jun'13))

- Part of **43** member team for contacting and coordinating **400+** companies for recruitment of **1600+** students
- **Formulated** a **2** month contacting strategy targeting **30%** increase in recruiter conversion
- Strategized **contacting&collaboration policy** with alumni association to reach potential recruiters as D.P.C
- Achieved **300%** increase in no. of recruiters, **200%** increase in no. of placements as D.P.C

Head Cultural, Avirbhav, University of Allahabad Jan'12-Apr'12

- Prioritized action plan, Initiated strategies to achieve **70%** increment in participation and **30%** in audience.
- Spearheaded execution of **event specific** sponsorship strategy and achieved **150%** increase of sponsorships.

EXTRA-CURRICULAR ACHIEVEMENTS

- Part of **Institute Kho-Kho** team; **Led** Cluster Kho-Kho team to **semifinals** in PG Sports, IIT BOMBAY 2015
- Participated in Kaleidoscope, PG Cult Annual **Fashion Show**, IIT Bombay 2015
- Awarded **Man of the Match** for semifinal and member of team **winning** Techno Cricket Cup, Dept., A. U 2010
- **Bagged 1st** prize in Long Jump & Mono Mute Play, **2nd** in Mute Play, Shimmer, University of Allahabad 2010