BHANUTEJA ARYASOMAYAJULA

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SUMMARY

A passionate Data Scientist with the right mix of technical skills and business acumen having more than 4.5 years of experience in building data driven solutions spanning IoT, Manufacturing, Supply Chain, Health Care & Financial Services domains.

EDUCATION

Indian Institute of Technology, Kharagpur   *June 2011 - June 2016*
B.Tech. (Hons.) & M.Tech. in Mechanical Engineering.   Overall CGPA: 7.39/10

TECHNICAL SKILLS

Languages	Python, SAS, MATLAB
Databases	MySQL, SQLite, Hive
Cloud Technologies	AWS, Google Cloud
Version Control	GitHub
Techniques	Regressions, Tree based models, Nearest Neighbors, Clustering, Gaussian Processes, Time Series Forecasting, Neural Networks, CNNs

WORK EXPERIENCE

Bosch Center for Artificial Intelligence, Bengaluru   **Aug 2019 - present**
Senior Data Scientist

· Part of the global team at Bosch responsible for incorporating Artificial Intelligence into Bosch products and processes.

Automated Air Leakage Detection

· Built and deployed a Random Forest based automated air leakage detection algorithm for the manufacturing plants at BSH Hausgeräte GmbH.
· Worked with ultra sound data and engineered features using techniques like Fourier Transforms, Power Spectral Density, Kurtosis, Skewness etc. which resulted in a model accuracy of 99.2%.
· The fully developed solution (hardware & software) has an estimated target market of 180 Mn €.

Vivalytic - Automated Spot Detection Algorithm

· Vivalytic is a universal platform for molecular diagnostics that can analyze sample materials in a fully automated way via designated cartridges, the result being indicated in the form of fluorescent spots.
· Built a CNN based spot detection algorithm which has been deployed in the Vivalytic platform.
· Experimented with various techniques like Dynamic Drop-out & Cross Validation to improve the model performance and robustness, achieved an overall accuracy of 99.77%.
· Forecasted sales revenue of the platform by 2025 is more than 250 Mn €.

Machinery Spare Part Inventory Optimization

· Developed and deployed a fully automated solution for spare part stock inventory planning in manufacturing plants of Bosch's Power Train Solutions division.
· Employed probabilistic techniques like reorder point and economic order quantity models, thereby ensuring timely availability of spare parts and avoiding production shut downs.
· Built and integrated an outlier detection engine into the above solution which generates alerts for parts having anomalous consumption patterns.

· The solution has been deployed for usage in 16 manufacturing plants across Europe accounting for an annual inventory savings of 3 Mn €.

Electric Car Battery Aging Prediction
· Built a Gaussian Process based model to improve the robustness and accuracy of the state of health estimation of EV batteries.
· Worked with battery aging data containing electro-chemical parameters, temperature, voltage, charging & discharge current related information.
· Forecasted sales revenue of the platform by 2025 is 104 Mn € with the AI solution contributing 1%.

Miscellaneous
· Represented Bosch at the campus recruitment events of multiple top-tier Indian universities to setup a best-in-class Artificial Intelligence team for Bosch in India.
· Conceptualized and implemented a company wide initiative "Prod-casts" in order to improve the awareness of Artificial Intelligence among Boschlers.

American Express India Pvt. Ltd., Gurugram   Aug 2016 - Aug 2019
Data Scientist

· Part of the credit limit management team responsible for consulting 14 proprietary markets of American Express' lending business outside the US with an annual billed business of over 7Bn $ (as on Aug 2019).

Risk & Credit Limit Model Development
· Developed the first generation GBDT models to predict the payment default risk behavior of incoming credit card applications for India, Singapore, Hong Kong, Thailand with a 50% lift in GINI
· Responsible for architecture, implementation and delivery of an enhanced kNN model based credit limit assignment strategy for new credit card applications in Australia & the UK.
· Closely worked with business partners spanning across strategy, marketing and technology to drive initiatives with a revenue impact of 20Mn $ in a span of 2 years.

Mentorship & Training
· Mentored 2 new hires by taking knowledge transfer sessions and been a subject matter expert of the credit limit function across the company's global risk center of excellence.
· Consistently received highest year end ratings and awards from top level management for excellent performance, driving results and exhibiting leadership behavior.

ACADEMIC ACHIEVEMENTS

Secured All India Ranks 982(top 0.2%) in IIT JEE - 2011 and 875(top 0.07 %) in AIEEE - 2011.

Finalist in Indian National Physics & Astronomical Olympiads in 2010.

Winner of under 15 district level Sudoku championship held by Rotary Club, Visakhapatnam.

EXTRA-CURRICULAR

Successfully led a 100+ member dramatics club in university to put up stage plays witnessed by 800+ strong audience.

Cadet at No. 3 Bengal Technical (Air) Squadron National Cadet Corps. Trained at using a .22 Long Rifle.