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EXPERIENCE

Data Scientist, EquipmentShare May 2023-Present

- Founding member of data science team working on customer, equipment and operational efficiency

Research Scientist, Convoy December 2021 – March 2023

- Founding member of cost forecasting platform to build models for market rates and sub-models for specific use-cases with Deep Learning using Tab Transformer embedding, fine-tuning, and transfer learning resulting in distribution based predictions and improved operational efficiency by 2x.
- Prototyped human in the loop explainability architecture to create a flywheel/feedback-loop to improve pricing algorithms providing error analysis leading to launch of spot farming program resulting in revenue growth of 3%.
- Launched 4 A/B test experiments in production to understand pricing behavior on various slices of shippers with power analysis resulting in signals for willingness to pay with improvements of over 200 basis points.
- Analyzed markets to find successful day-rate regions resulting in 80% utilization and over 30% contribution margins.

Senior Data Scientist, Metromile August 2021-December 2021

- Worked with Actuary and underwriting to clarify requirements and build an risk underwriting model for multiple states looking at endorsements, fraud, usage-based driving, credit, and demographic factors
- Documented proposal, roadmap, and strategy for launching underwriting models gaining buy-in from actuary and underwriting departments
- Initiated proposal and design of feature store for maintenance of ML features across different models

Data Scientist, Viaduct February 2021-August 2021

- Worked with product manager to refine requirements and translate to modeling/technical statements through spikes on multiple product lines improving ROI for end user by 2x reduced turnaround time
- Improved recall by 10% for model by generating 20 context features through experimentation of telematics variables
- Designed and architected a process for analyzing feature importance and trends over multiple model deployments improving feature inclusion criteria and improved model performance by 2%.

Data Scientist at SAP September 2018 – January 2021

- Aligned customer objectives across operations, finance and strategy with presentations to stakeholders to improve revenue by 6 million in operations with industry 4.0
- Partnered with a team of UX and software to engineer NLP analysis for an order status chatbot to recognize Named Entity elements for conversational intelligence in procurement resulting in ACV of 0.2Million a year
- Influenced explainability initiative across organization by inventing a method for local feature importance with upper and lower bounds resulting in 6x improvement in response time enabling easier adoption and Go To Market.
- Improved performance of API for data ingestion by 33% with Object oriented design, 80% with caching in model store

Doctoral Researcher, Indiana University August 2013 – August 2019

- Invented a sequential objective function based on the output of a multivariate Hidden Markov Model (HMM) for hyperparameter tuning using non-differentiable optimization improving accuracy by 60%
- Created a Markov decision process to predict cursor movement in an experimental setting with 95% accuracy

Software Engineer, Altran Praxis February 2010 - July 2010

Software Engineer, Accenture June 2007 - February 2010

SKILLS

Languages: Python(pyspark, pandas, scikit-learn, Tensorflow), STAN, Matlab, SQL

Tools: git, Jupyter, AWS, Spark, Airflow, MLFlow, SAP Data Intelligence

Machine learning: Deep Learning, classical ML, Statistical testing , Time series, Optimization, , Bayesian methods

EDUCATION

Indiana University, Bloomington, **PhD** in *Cognitive Science and Psychology* June 2020

Indiana University, Bloomington, **M.S.** in *Computer Science* May 2012

M.S. Ramaiah Institute of Technology, Bangalore, India, **B.Eng** in *Computer Science* June 2007