ABHISHEK BARAL

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Education

Duke University: 2019-2021 - Degree: Master in Interdisciplinary Data Science

Drake University: 2012-2016 - Degree: BS in Economics

Skills

Languages: R, Python, C, C++, SQL

Tools: Git, Latex, Tableau, Pytorch, FastAI, Scikit-Learn, MS Azure, Spark, EMACS, AWS

Statistical Learning: Bayesian Inference, Neural Nets, CNN, Statistical Modeling, Machine Learning, Forecasting, Causal Inference

Certifications: AWS Cloud Practitioner

Professional Experience

DUKE UNIVERSITY, Durham, NC **Aug. 2020-Present**

Research Assistant: Agent based Bayesian modelling for bushmeat hunting

- Working with the Nicholas School of the Environment to create a novel form of bottom-up modeling, integrating the latest advances in agent-based modelling and Bayesian inference to create sustainable hunting policies for villages in Africa

GAEA GLOBAL, Santa Monica, CA **May. 2020–Aug. 2020**

Data Scientist Intern

- Created statistical demand forecasts using ARIMA (Auto Regressive Integrated Moving Average) and ETS (Error, Trend, Seasonal) from historical sales data to predict quarterly sales as well as identify high selling SKU's which was developed in R
- Wrangled, processed, and removed outliers in sales data to determine daily demand of all SKU's sold in the warehouse using Python
- Reduced picking costs by creating an algorithm that determines the number and location of SKU's in a warehouse based off the demand forecast in addition to the daily sales data

COATS GROUP, Charlotte, NC **Jan. 2017–Aug. 2019**

Data Scientist

- Reduced days sales outstanding by 0.9 days, an equivalent of $4.4 million collected in accounts receivables through the deployment of a pre-reminder model which was developed in R
- Increased productivity by 12% for the credit control team globally through a machine learning auto-regression model that predicted customer payment delinquency and was automated through Microsoft Azure services
- Created a statistical forecast model with 95% accuracy for the footwear team to predict monthly sales of products globally that was developed in R
- Created a pitchbook analyzing the relationship between GDP growth and clothing retail through linear regressions, which was given to the Investor Relations team for client presentations to institutional investors when Coats entered the FTSE 250
- Developed an algorithm to assign customer payments to open invoices based on customer payment behavior, which was hosted on Databricks, reducing manual processing of invoice matching
- Analyzed yarn sales of a major global retailer in the US using geospatial data, linear regressions, and forecasting to understand how weather affects sales, leading the Coats Crafts team to adjust their stocking strategy based on seasonality

RIVER GLEN PRIVATE CAPITAL, Des Moines, IA **Jul. 2016-Dec. 2016**

Venture Capital Analyst

- Evaluated investment opportunities through due diligence, market research, and financial analysis to construct investment recommendations to management team
- Guided entrepreneurs on business strategic planning and venture financing