# Rajesh Giri
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## SKILLS

- **Machine Learning:** Regression, Tree based algorithms, SVMs, NLP, CNN, LSTM, MLP, RNN, Transformer based models
- **Tools and Programming**: Python, SQL, Tableau, Power BI, C++, MS Excel, VBA Macros, JIRA, Miro, Flask, Git, Spark-SQL
- **Libraries and Packages**: Pandas, NumPy, PySpark, Scikit-learn, Seaborn, Matplotlib, PyTorch, Spacy, NLTK
- **Cloud Environments**: AWS SageMaker, AWS Athena, AIR9, Snowflake, Dataiku, Google Data Studio, Databricks

## WORK EXPERIENCE

### Data Scientist | May'22 – Present
*Tiger Analytics, Cincinnati, Ohio*
- Developed a **Probability of Default** model deploying **Logistic Regression** and **ARIMAX** forecasting. Attained over **90% recall** in predicting charge-off probabilities for credit card users, enhancing loss forecasting
- Spearheaded the building and deployment of a **Flask** application to **automate validation of PDF letters** for student loans business, decreasing turnaround time by more than **90%** and boosting accuracy by over **25%**
- Designed an end-to-end **PyTorch Natural Language Processing** library for **text classification** to finetune **Hugging Face Transformer models,** reducing development time by **~90%**
- Employed **PySpark** in **Databricks** to profile **~27mn.** active credit card customers, performed segment-specific **lifecycle analysis**. This facilitated targeted value propositions, contributing to a projected **~18% surge in customer spending**

### Data Science Consultant (Part-Time) | Aug'21 – Feb'22
*Ameritas Holding Company, Cincinnati, Ohio*
- Formulated comprehensive customer profiles for retirement plans by implementing a **K Means Clustering** model in **Dataiku,** achieved a **Silhouette score of 0.64**, established distinct marketing strategies for each cluster
- Tracked model efficacy by evaluating customer behavior data, showcasing a **13% upswing in monthly sales**

### Deputy Manager – Data Science | *Nov'18 – Aug'21*
*Aditya Birla Capital, Mumbai, India*
- Innovated a chat-based **NLP lead generation engine** to predict conversion likelihood by classifying intents and identifying keywords from daily customer chats. This led to **a 3x** increase in daily leads and **6x** increase in new business
- Implemented a **churn prediction model** in **AWS SageMaker**, generated actionable insights by identifying key driver for each churner to effectively employ targeted retention strategies. **Captured 70% churners within 6 months** of adopting the model
- **Boosted user conversion rate by ~12%** by analyzing customer funnel for **~10mn. customers**, identifying drop-off points to optimize user journey
- Orchestrated **A/B testing** experiments to elevate web traffic performance, leading to **12% lift** in key KPIs and **$11 Mn increase in annual SIP sales**
- Established monthly cadence of **mutual fund industry analysis** in **Power BI** to track competition funds, walking top management through key insights to facilitate strategic decision making

### Risk Analyst | *Jun'16 – Nov'18*
*Edelweiss Financial Services, Mumbai, India*
- Devised a robust **credit scoring model** based on **LGBM Classifier** to forecast credit defaults for unsecured lending business, potentially increasing profits by **~40%**
- Engineered a **Stress Testing** Tool in **Python** employing **Monte Carlo Simulation** to gauge portfolio risk during extreme market scenarios, resulting in **~70% time savings** for devising informed risk mitigation strategies
- Analyzed portfolio risk metrics, automated risk reporting process using **Python**, reduced turnaround time by **~40%**
- Crafted weekly reports in **Tableau** capturing vital risk KPIs contributing to **reduction in risk breaches by ~20%**

## EDUCATION

### University of Cincinnati, Carl H. Lindner College of Business
*Master of Science, Business Analytics (STEM) | Aug'21- Aug'22 | Cincinnati, Ohio*

### Pune University
*Bachelor in Electronics & Telecommunications Engineering | Jul'12 - Jun'16 | Pune, India*

## ACADEMIC PROJECTS

- **Restaurant Finder:** Built an interactive **Tableau dashboard** highlighting the U.S.'s top 10 fast food chains by outlets, enabling users to easily find nearby restaurants within a chosen radius. Link to dashboard
- **Spam Detection:** Classified spam emails implementing text classification using **Convolutional Neural Network (CNN),** achieved **validation accuracy of 98%.** Link to notebook
- **Demand Forecasting:** Forecasted the bike rental demand using **XGBOOST + FB Prophet** models, **MAPE - 19%.** Link to notebook