

# Kartik Dhawan

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## Summary

Full-Stack Data Scientist with 8 years of experience across Data Engineering, Product Leadership and Data Science with the US's largest mortgage company. Based in New Delhi and open to relocation.

## Professional Experience

### **Rocket Mortgage, Detroit, MI | Senior Data Scientist.**

March 2020- March 2025

- Led strategic initiatives within revenue generation teams, contributing to a significant \$50 billion in retail loan volume over 20 months, representing 10% of Rocket Mortgage's lead flow.
- Utilized Python and AWS Sagemaker to develop an XGBoost model to predict client probability to close, optimizing sales pipelines and increasing conversion rates by 15%.
- Processed petabytes of credit card transaction data utilizing SQL in AWS Wrangler to build a ML model that predicts homebuying readiness, resulting in a 50% increase in mortgage application sign-ups.
- Collaborated with Meta to launch an experiment to measure the impact of increased marketing spend on overall conversion, resulting in a 15% increase in budget allocation in the subsequent quarter.
- Designed and implemented a measurement strategy for email campaigns, providing stakeholders with visibility into incremental conversion rates, which attributed to a 20% increase in overall conversion.
- Partnered with stakeholders to define key metrics for understanding market penetration and conversion rates across various regions in the US, leading to optimizations in performance media bidding and a subsequent boost in return on advertising spend (ROAS).
- Actively mentored and trained associate scientists and engineers, speeding up onboarding by 2 weeks, fostering a culture of continuous learning and development within the team.

**Tech Stack:** Python, SQL, Spark, XG-Boost, TensorFlow, Pandas, NumPy, Scikit-Learn, AWS (S3, Athena, Sagemaker)

### **Rocket Mortgage, Detroit, MI | Senior Data Engineer**

Jan 2018- March 2020

- Architected and Deployed Big Data orchestrator ETL on AWS using Spark, Glue and Lambdas to predict solution eligibility for 40 million clients used to create leads, generate marketing campaigns and pre-fill data.
- Created data pipeline that imputes data utilizing third party sources and statistical techniques, resulting in 15 million additional fresh sales leads. **Nominated for an all-company award as a 'Special Achievement'.**
- Reduced Spark data pipeline run time by 75% through implementing delta loads and calculating projected benefit in-memory through statistical techniques, avoiding expensive API calls on millions of records.
- Leveraged NiFi and Attunity to automate batch ingestion of files into Cloudera Data Lake, created Hive tables on data stored in S3 to allow seamless querying of data.
- Developed a rule-based engine in python to identify key plays like 'pick and rolls' utilizing player coordinate data for NBA team Cleveland Cavaliers, leading to an increase in coaching efficiency by 10%.

**Tech Stack:** Python, Hadoop, NiFi, Hive, Oozie, AWS (S3, Lambdas, Glue, Step Functions), Circle-CI, GitHub

### **Rocket Mortgage, Detroit, MI | Analytics Engineer**

Sep 2016- Jan 2018

- Integrated source data into dimensional models by implementing ETLs in SSIS, scheduled automated jobs to save analysts 2 hours per day on manual data pulls.
- Authored highly- performant T-SQL code to power Tableau and Power BI dashboards.
- Optimized SQL queries by utilizing query execution plans. Reducing run time by 40% on average.
- Collaborated with business stakeholders to perform data pulls and automate analyst queries.

**Tech Stack:** MS SQL Server, Tableau, Power BI, SSIS, SSRS, T-SQL

## Education

Georgia Institute of Technology  
Indiana University Bloomington

*Master of Science in Analytics*  
*Bachelor of Science in Informatics*

Aug 2019- July 2021  
Aug 2012- May 2016

## Publications

- [Towards Data Science](#): Exploring the world of Ramen through Text Analytics!
- [Towards Data Science](#): My Quarantine, Wrapped.