

# MARIE HANNA

Senior Data Scientist | Machine Learning | Predictive Analytics | Python Mastery

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📍 VA, United States

## EXPERIENCE

### Senior Data Scientist,

YourHomeEstate 2023 - Present

- Designed and implemented a machine learning system that predicts hardware malfunction with more than 72% accuracy.
- Created global and personalized real time reports system for executives stakeholders and processes in SAS, Tableau, and proprietary systems.
- Worked closely with a team of data engineers and BI analysts to improve the efficiency customer recommendation analytics engine by 33%.
- Developed ML models for property price prediction and buyer behavior analysis, improving pricing accuracy by 15% and reducing sales cycle time by 20%.
- Built end-to-end analytics pipelines using Python, SQL, scikit-learn, and AWS for demand forecasting and lead scoring across 5,600+ listed properties.
- Applied NLP and clustering on property descriptions to segment listings and personalize recommendations, driving 8-10% YoY revenue growth.

### Senior Machine Learning Engineer

Etyon 2020 - 2023

- Led cross-functional collaboration with product, design, and marketing teams to design and evaluate A/B tests, resulting in a 20% improvement in user engagement through data-backed UX enhancements.
- Designed and deployed a deep learning model using TensorFlow for customer sentiment analysis across support channels, increasing sentiment classification accuracy by 15%.
- Applied natural language processing (NLP) on customer reviews to enhance recommendation systems, leading to a 15% increase in conversion rates and 12% sales growth.
- Developed predictive models for user retention and churn using Python, XGBoost, and Scikit-learn, enabling marketing teams to launch targeted campaigns that improved retention by 17%.
- Mentored junior data analysts and interns, conducting regular code reviews and helping standardize modeling practices across the team.
- Created internal dashboards and reporting pipelines using SQL and Python to monitor product KPIs and ML model performance, reducing reporting latency by 30%.

### Data Scientist

PinTechSolutions 2018 - 2020

- Translated complex datasets into strategic insights for C-suite stakeholders, improving operational efficiency and customer experience.
- Built predictive models for property pricing and buyer behavior, enhancing pricing accuracy by 15% and reducing sales cycles by 20%.
- Designed end-to-end analytics pipelines using Python, SQL, scikit-learn, and AWS to forecast demand and score leads across 5,600+ properties.
- Applied NLP and clustering to segment property listings and personalize recommendations, leading to 8-10% year-over-year revenue growth.
- Leveraged computer vision on listing images to detect anomalies and extract high-impact features, strengthening fraud detection.
- Delivered more than 20 data-driven reports for marketing campaigns, influencing a 78% increase in search campaign revenue.

## SUMMARY

Senior data science professional with over 6 years of experience in machine learning and predictive analytics, expert in Python programming and statistical analysis. Key achievements include enhancing marketing measurement techniques and optimizing product revenue through multivariate experiments. Seeking a Senior Data Scientist position, where I bring my advanced analytics and data science skills to support mission of making work more intuitive, joyful, and human.

## TECH STACK

Python • Java • C • Scala • R • Hadoop •

Rapid Miner • QlikView • MonboDB

TensorFlow • PyTorch • Scikit-learn • Keras •

Pandas • OpenCV • NLTK • spaCy • Hadoop • Spark •

MapReduce • NumPy • Java • Fast API •

Deep Learning • Hbase • Django • Flask • AI •

Machine Learning • Data Preprocessing •

Feature Engineering • Data Visualization •

Data Analysis • Data Cleaning • Linear Algebra •

Calculus • Probability • Statistics • MongoDB •

PostgreSQL • Redis • MSSQL Server • SQL Lite

## EDUCATION

### Masters: Data Science

George Mason University

2017 - 2019

### Bachelor's of Science in Finance

George Mason University

2010 - 2014

## PROJECTS

### Accupoll

(<https://www.acupoll.com/>)

Accupoll is an innovative research firm that helps clients discover, evaluate, and improve new product and service innovations, delivering clarity and learning to drive growth.

### Sell Gauge

(<http://sellgauge.com/>)

- Increased dealer participation by {25%} through the integration of live vehicle auctions in the Sell Gauge app.