Michael Beauchamp

LinkedIn: mlbeauchamp
Email: mlbeauchamp58@gmail.com
GitHub: mlbeau
Website: mlbeau.github.io

SUMMARY

M.S. in Data Science graduate from Northwestern University with a passion for enabling data-driven business insights. Proficient in Python, SQL, R, multivariate statistical analysis, machine learning, and data visualization tools like Tableau. Seeking a Data Engineering role to leverage my data science expertise in providing a robust foundation for data processing, storage, and consumption across teams, including machine learning (ML) engineers and data scientists. Equipped to perform ETL processes, implement predictive models, and apply machine learning algorithms to tackle complex business challenges, and facilitating seamless data science development.

EXPERIENCE

Carrier Corporation — Indianapolis, IN
Senior Analyst, Supply Chain Intelligence — Dec 2011 - Present

- Led the design, development, and implementation of 25+ SAP BOBJ Web Intelligence reports and interactive dashboards, providing real-time insights into supply chain KPIs and enabling data-driven decision-making.
- Built SQL stored procedures and ETL pipelines to integrate and prepare data for SAP and BOBJ platform implementations.
- Developed machine learning models in Python to improve demand forecasting accuracy by 15%, enabling superior supply planning.
- Performed multivariate regression and clustering analysis in R to identify predictors of customer churn and guide retention strategies.
- Leveraged data mining and predictive modeling techniques to identify demand patterns, contributing to a 10% improvement in demand forecasting accuracy and optimized inventory management.
- Played a pivotal role in maintaining SAS data modeling and data warehouse administration, ensuring data integrity, and enabling 40% faster query performance.

UnitedHealth Group – Optum — Franklin, TN
Data Engineer, Healthcare Analytics — May 2011 - Dec 2011

- Built machine learning classifiers in Python to detect fraudulent claims, saving over $2M in improper payments.
- Engineered an automated ETL pipeline for Medicaid member data, seamlessly integrating it into on-premises databases. This initiative significantly enhanced data quality and accessibility.
- Performed dimensionality reduction on healthcare claims data and implemented clustering algorithms to identify utilization patterns.
- Communicated data insights to cross-functional teams through presentations to drive enhancements.

MRC Global — Tulsa, OK
Data Engineer, Supply Chain Analytics — May 2008 - Sep 2009

- Developed dynamic web applications using HTML, JavaScript, ColdFusion using SQL against Oracle back-end database.
- Performed statistical analysis in R to monitor data quality, identify anomalies, and recommend process improvements, improving data accuracy by 20%.
- Built end-to-end machine learning models in Python to predict inventory needs, enabling superior demand planning.

The Rowland Group — Tulsa, OK
Data Engineer, Pricing Analytics — Nov 2007 - May 2008

- Built machine learning models in Python to forecast product demand, improving sales projections by 10%.
- Designed MySQL database schema to allow for scalable storage and faster querying of large pricing datasets.

DataCom, Inc. Broken Arrow, OK
Software Engineer Nov 2006 - Nov 2007

- Built Microsoft SSRS reporting dashboard to uncover customer, product, and sales insights for executives.
- Designed contract and revenue web pages using ASP.NET and C#.

Northeastern State University Tahlequah, OK
Data Analyst, Enrollment Analytics May 2001 - Nov 2006

- Built logistic regression models in Python to identify factors influencing student enrollment, improving admissions forecasting by 30%.
- Designed MySQL database schema and ETL pipelines to integrate student data from multiple systems into a single database.
- Performed cohort analysis in R to track graduation rates across student demographics and guide retention initiatives.
- Implemented statistical models to predict students at risk of dropping out.
- Developed Excel visualizations to provide enrollment insights and trends to university leadership.

TECHNICAL SKILLS

- Proficient with Python for data analysis, machine learning, statistical modeling, data visualization (Matplotlib, Seaborn), and NLP.
- Experience with machine learning approaches including regression, random forest, boosting, neural networks, clustering, and dimensionality reduction.
- Experienced with JavaScript, SQL, and Python Django framework.
- NoSQL Databases: MongoDB
- Cloud Platforms: AWS, Azure, GCP
- Data Engineering with Spark Dataframe APIs (PySpark) using Databricks.
- Python Libraries: Pandas, NumPy, Scikit-Learn, Matplotlib, Keras, PyTorch, TensorFlow.

EDUCATION

- **MIT Professional Education** Boston, MA
  Certificate: Applied Data Science July 2023

- **Northwestern University** Evanston, IL
  M.S. in Data Science March 2016
  Relevant Coursework: Statistical Modeling, Machine Learning, Data Visualization
  GPA: 3.7

- **Northeastern State University** Tahlequah, OK
  B.S. in Mathematics December 2011