Rochester, MN
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RYAN BIEBER

SKILLS

AI/Data Science	Machine Learning Engineering	Data Engineering
Time-series, LLM, RAG, Prompt Engineering, Classification, Scikit-learn, Bayesian Methods, Plotly, Streamlit	**Kubernetes, Docker, Helm, Jenkins, Terraform, Azure Pipelines, Python**	**Postgres, Redis, Snowflake, SQL, Airflow, Astronomer, Mongo**

EXPERIENCE

C.H. Robinson, Eden Prairie, MN(Remote)— *Senior Data Scientist*

MARCH 2021 - Present (3yrs 6 mos)

- Developed end to end Gen AI pipeline to automate customer bid generation using non-standard doctypes with non-standard formats utilizing multiple RAG pipelines and agents.
- Created an integrated time series forecasting platform. Implemented real-time forecast delivery to Kafka and REST services with models such as Temporal Fusion Transform (TFT) and N-Hits for seamless integration and analysis. This application prices over $80 billion dollars worth of freight annually.
- Created a Gen AI application pipeline to automate news gathering using NLP for the sales team, providing a competitive edge in identifying new business opportunities with both existing and potential customers.
- Architected and deployed multiple GenAI applications that capture unstructured text from various document sources and structures them to be used in decision making applications. This allowed an automation of multiple positions that would currently need to be manually done.
- Developed a forecasting application leveraging the GluonTS forecasting package (AWS Research), enabling the utilization of advanced forecasting models like NBEATS, N-HITS, TFT, etc. The application served requests via both Kafka topics and REST APIs for enhanced flexibility in data consumption.
- Analyzed and published the national reefer forecast in relation to dry van transportation, examining the interaction between these regions and their impact on national freight dynamics.
- Developed a defect monitoring dashboard to detect anomalies in forecasts proactively, automating the process and emailing HTML Plotly plots to the team's inbox and channel for collaborative analysis and iteration on forecasts.
- Developed a bid optimizer using the Black-Litterman Scholes model to enhance bidding strategies on transportation lanes, enabling a comprehensive analysis of bid risk and creating optimal risk-reward trade-offs with predefined constraints..
- Established a repository utilizing Redis and Airflow to automate the execution of notebooks, enabling non-technical individuals to automate code seamlessly and quickly deploy minimum viable products (MVPs).

IBM, Rochester, MN— *Financial Data Scientist*

JUNE 2019 - MARCH 2021 (1yr 8mos)

- Did NLPtext analysis on over 1000 employees weekly to gather sentiment and track efficiency in working patterns, led to a 20% improvement in task completion times.
- Developed and managed a time-series package in R specialized for automating the backtesting of financial forecasts, ensuring efficient and reliable analysis of forecast performance.
- Constructed a webhook application to capture real-time events from Trello boards and automate task updates, leading to improved task utilization and time-tracking across all IBM finance departments, resulting in significant time savings equivalent to over 50 full-time employees (FTE).
- Acted as squad lead for a group of junior data scientists, introducing them to Python and R as primary languages for data science projects along with teaching them time-series techniques.
- Received IBM Special Equity Award in May 2020 and IBM Strategic Priorities Award in September 2020

INTERNSHIPS

InfoTech Consulting, Gainesville, FL— *Associate Consultant Graduate Intern*
MAY 2018 - AUG 2018

- Conducted data analysis on three class action lawsuits within the consulting team to identify instances of collusion and antitrust violations, utilizing data-driven insights to support legal investigations.
- Gained exposure to deposition work and assisted expert witnesses in preparing testimony for depositions, contributing to the legal process with expertise and support in case preparation.
- Received a letter of recommendation from the CEO, highlighting my work and contributions within the organization.

Mayo Clinic, Rochester, MN— *Undergraduate Research Fellow*
JUNE 2015 - AUG 2015

- Collaborated with the imaging group on Magnetic Resonance Elastography (MRE) projects, contributing to research in advanced imaging techniques and analysis.
- Conducted Thin Plate Modeling in MATLAB by employing Lamb waves to simulate wave propagation through the heart wall, aiming to evaluate and determine heart stiffness.
- Showcased my research and findings at a poster session within the Biomedical Engineering college, presenting significant contributions to the field.

EDUCATION

University of North Dakota, Grand Forks, ND— *M.S.(Economics) 2017-2019*

- Provided tutoring support to students experiencing difficulties in Macroeconomics, Microeconomics, International Economics, and Econometrics, assisting them in enhancing their understanding and performance in these subjects.
- Engaged in data cleaning tasks to enhance data accessibility and usability for professors, ensuring the data was prepared and structured appropriately for analysis and research purposes.

University of North Dakota, Grand Forks, ND— *B.S./B.A.(Math/Economics) 2013-2017*

- Vice President of the Physics Club for two years, overseeing projects including a railgun and engaging in Arduino/Raspberry Pi projects.