

Brian Reinbold

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EDUCATION

University of Illinois at Urbana-Champaign, IL
Master of Computer Science

August 2023
GPA: 4.0/4.0

Indiana University in Bloomington, IN
Mathematics BS and Economics BA

May 2017
GPA: 3.9/4.0

WORK EXPERIENCE

Discover Financial Services - Chicago, IL
Data Scientist Intern

June 2022 – August 2022

- Devised a comprehensive strategy to optimize student aggregate debt limits for the Discover Student Loan product, reducing losses by an estimated \$9MM annually
- Delivered impactful recommendations to senior leaders aimed at enhancing the predictive capabilities of earnings data based on student major

Instra.Ai - Chicago, IL
Machine Learning Engineer Intern

October 2021 – June 2022

- Constructed an image augmentation pipeline for early stage start-up in the healthcare sector and integrated data stored in S3 and trained a state-of-the-art object detection model
- Supervised team of 5 to integrate additional object detection models into the training pipeline
- Collaborated with others to improve a program to generate synthetic images to improve model training
- Architected initial SQL database schema for an at home healthcare management application

Federal Reserve Bank of St. Louis - St. Louis, MO
Data Engineer

June 2020 – August 2021

- Orchestrated data updates, maintenance, and acquisition for [FRED](#), a large database consisting of over 822,000 economic time series from 110 different sources, utilizing Python, SQL, and PHP as primary tools
- Incorporated over 200,000 data series into a metadata pipeline to automatically maintain series metadata, ensuring efficient management and accuracy of series information
- Collaborated within an Agile methodology, actively engaging with the entire team to provide and receive valuable feedback on code and design, ensuring alignment with business requirements and effectively tailoring applications for functionality
- Documented data engineering processes, including data flows, system architectures, and technical specifications, to facilitate knowledge sharing and maintain system documentation
- Created a Python module utilizing OOP to automate the parsing of release dates in 68 releases from 15 different sources

Federal Reserve Bank of St. Louis - St. Louis, MO
Research Associate

July 2017 – June 2020

- Provided primary research assistance to 3 economists, exceeding the typical responsibility of working with 2 economists
- Utilized advanced statistical procedures, including VARs, logit models, and dynamic fixed effects regressions, to conduct rigorous econometric research for publication in esteemed academic journals
- Recognized as a role model by both management and peers, achieving the highest designation in year-end performance reviews for two out of three years as a research associate
- Prepared economists for high-stakes presentations. Notably, one of these presentations was acknowledged as exceptional by the Bank's president, being recognized as one of the best and most informative FOMC policy briefings
- Recruited and trained an average of 5 new research associates per year, ensuring a seamless onboarding process and equipping them with the necessary skills for their roles
- Co-authored 36+ bank publications, some of which have been cited by [Bloomberg](#), [The Telegraph](#), and the [LA Times](#)
- Engineered a pipeline to update data relevant for a VAR to predict real GDP to advise the Colombian government
- Authored a report in the Bank's Beige Book, utilizing state sales tax data as a proxy for consumption, to offer comprehensive insights into consumer spending trends

CERTIFICATES

AWS Cloud Practitioner

September 2021

COURSEWORK

Machine Learning • Deep Learning • NLP • Computer Vision • Probability Theory • Stochastic Processes • Econometrics

TECHNICAL SKILLS

Python • R • Java • C++ • Pytorch • Tensorflow • SQL • AWS • Git • Bash • PySpark • Docker • Excel • Matlab • LaTeX