

# Brian Reinbold

reinbold.brian.j@gmail.com | 317-362-6056

---

## EDUCATION

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

Expected May 2023  
GPA: 4.00/4.00

**Indiana University in Bloomington, IN**  
*Mathematics BS and Economics BA*

May 2017  
GPA: 3.87/4.00

## WORK EXPERIENCE

**Discover Financial Services** - Chicago, IL  
*Data Scientist Intern*

June 2022 – August 2022

- Developed strategy to adjust student aggregate debt limits for the Discover Student Loan product, reducing losses by an estimated \$9MM annually
- Presented recommendations to senior leaders that will enhance the predictive capabilities of earnings data by student major

**Instra.Ai** - Chicago, IL

October 2021 – May 2022

*Machine Learning Engineer Intern*

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

**Federal Reserve Bank of St. Louis** - St. Louis, MO

June 2020 – August 2021

*Data Engineer*

- Maintained updates of over 786,000 data series across 103 sources using Python, SQL, and PHP for the [FRED](#) database
- Developed Python module using OOP to parse release dates in 68 releases across 15 sources to automate the update process
- Incorporated over 200,000 data series into a metadata pipeline to automatically maintain series metadata
- Worked in Agile methodology, interacted directly with the entire team providing/receiving feedback on code and design, and tailored applications to meet business requirements

**Federal Reserve Bank of St. Louis** - St. Louis, MO

July 2017 – June 2020

*Research Associate*

- Implemented advanced statistical procedures to conduct high-level econometric research for publication in academic journals. These methods include VARs, logit models, spectral analysis, and fixed effects regressions
- Engineered a pipeline to update data relevant for a VAR to predict real GDP to advise the Colombian government
- Recruited and trained approximately 5 new research associates annually
- Co-authored 36 bank publications, some of which have been cited by [Bloomberg](#), [The Telegraph](#), and the [LA Times](#)
- Summarized consumer spending trends utilizing state sales tax data for a report in the bank's Beige Book
- Prepared economists for FOMC policy briefings, economic outlook talks, academic seminars, and other presentations

**Indiana University Math Department** - Bloomington, IN

August 2014 – May 2017

*Undergraduate Internship (UGI)*

- Tutored about 20 students during scheduled departmental help sessions in Applied Calculus and Finite Mathematics to provide free instruction to students increasing understanding of course material
- Proctor and grade exams, departmental midterms, and departmental finals to assist faculty members with their workload
- Recognized by faculty as tutor of the year in Spring 2017

## LEADERSHIP AND COMMUNITY INVOLVEMENT

**Big Brothers Big Sisters of America** - St. Louis, MO

October 2018 – April 2020

*Big Brother*

- Mentored a local 11 year old child by organizing activities to provide a supportive and friendly environment for him including teaching him fishing, going on hikes, and going swimming

## CERTIFICATES

AWS Cloud Practitioner

September 2021

## COURSEWORK

Machine Learning • Deep Learning • Cloud Computing Applications • Probability Theory • Stochastic Processes • Econometrics

## TECHNICAL SKILLS

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