Andrew Hatfield

andrewbhatfield.com

EDUCATION

Illinois State University — Normal, IL
M.S. in Mathematics (GPA 3.85) — *Aug. 2021 - Aug. 2022*

Illinois State University — Normal, IL
B.S. in Mathematics, Economics Minor (GPA 3.79, Cum Laude) — *Aug. 2018 - May 2021*

PROFESSIONAL EXPERIENCE

General Ledger Programmer | *Paylocity* — *Nov. 2023 – Jul. 2024*
- Worked closely with 25+ clients at a time to build custom accounting reports in SQL
- Frequently contributed to ongoing documentation, process improvement, and new tool development efforts

IBA PEER Coordinator | *Intercollegiate Biomathematics Alliance* — *Jan. 2022 – Aug. 2022*
- Performed statistical consulting, analysis, visualization, and technical writing using pandas, numpy, and matplotlib
- Organized undergraduate research conference and gave seminars on R, Python, and introductory technical writing
- Coauthored NSF grant requesting funding for student research conference

Graduate Assistant | *Illinois State University* — *Aug. 2021 – May 2022*
- Designed material and taught introductory and advanced courses in Statistics and Probability
- Held office hours and review sessions as well as private tutoring
- Encouraged student engagement, growth, and success during an incredibly uncertain period

LPSD Lean Manufacturing Data Analyst | *Caterpillar* — *Feb. 2019 – Feb. 2021*
- Created and owned Python (Django) web app storing 100,000+ rows of manufacturing data across global facilities
- Efficiently performed PostgreSQL database maintenance tasks and ETL to integrate data from several sources
- Designed engaging and responsive webpages with JavaScript, HTML, and CSS to serve multiple facility groups
- Saved thousands of hours on metrics production yearly, allowing facility leaders to make informed decisions quickly

ACADEMIC EXPERIENCE

Academic Highlights
- Research work and collaborations in Algebra and Graph Theory leading to multiple publications and presentations
- Awarded United States Presidential Scholar Candidate, Redbird Scholar, and Outstanding Senior in Mathematics

Research Work
- Mathieu-Zhao Subspaces of Burnside Algebras of Some Finite Groups (Master's Thesis)
- Trigonometric Functions in the p-norm, joint with Chebolu, Klette, Moore, and Warden (Mathematics Exchange)
- Rings with an Elementary Abelian p-group of Units, joint with Chebolu, Corry, and Grimm (JCA)
- Hamiltonicity of 3-tough $(K_2 \cup 3K_1)$-free Graphs, joint with Grimm (Preprint)

SKILLS

- Multiple years of professional experience programming in Python, R, SQL, JavaScript, HTML, and CSS
- Proficiency with big data design, collection, and analysis, as well as collaborative tools like Azure DevOps
- Comfortable with MS Office Suite and Power BI, as well as LaTeX
- Highly detail-driven, thorough, innovative, and self-motivated
- Passionate about learning and creating something new