

Andrew Hatfield

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EDUCATION

Illinois State University

M.S. in Mathematics (GPA 3.85)

Normal, IL

Aug. 2021 - Aug. 2022

Illinois State University

B.S. in Mathematics, Economics Minor (GPA 3.79, Cum Laude)

Normal, IL

Aug. 2018 - May 2021

PROFESSIONAL EXPERIENCE

General Ledger Programmer | Paylocity

Nov. 2023 - Jul. 2024

- Worked closely with more than 25 clients at a time to build custom accounting reports in SQL
- Contributed to ongoing documentation, process improvement, and new tool development efforts
- Consistently overperformed team targets by 25%+, handled highest internal complexity and escalated projects

Graduate Assistant | Illinois State University

Aug. 2021 - May 2022

- Designed material and taught introductory and advanced courses in Statistics and Probability
- Served as IBA PEER Coordinator, performed statistical consulting with pandas/numpy/matplotlib
- Coauthored grant applications and coorganized undergraduate research conference, gave seminars on R/Python
- Encouraged student engagement, growth, and success during an incredibly uncertain period

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
- Designed and maintained PostgreSQL database, performed data cleaning to integrate data from several sources
- Automated metric production with JavaScript, HTML, CSS, and Power BI 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

- Highly detail-driven, thorough, innovative, and a quick learner (graduated undergraduate at 19 and master's at 20)
- Multiple years of professional experience writing Python, SQL, JavaScript, HTML, and CSS
- Proficiency with big data design, collection, and analysis, as well as collaborative tools like Azure DevOps/Git
- Comfortable with MS Office Suite and Power BI, as well as LaTeX
- Exposure to machine learning in Python using PyTorch, scikit-learn, and TensorFlow

REFERENCES

- Jema Villaluna - Team Lead (Paylocity)
- Olcay Akman - Assistantship Supervisor (Illinois State University)
- Michael Miller - Supervisor (Caterpillar)
- Scott Ingolia - Supervisor (Caterpillar)