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Employment History

Graduate Student Instructor, Univ. of Michigan

- Taught 400-level computational statistics and machine learning.
- Developed curriculum to teach graduate students to use Python for data analytics.
- Converted lab assignments to Python
- Graded assignments, de-bugged code, held office hours, and helped students with the computational components of their research.

Graduate Research Assistant, Univ. of Michigan Aug 2016 - Aug 2018

- Applied high-performance computing to run global predictive climate models.
- Developed code to manage large geospatial datasets in Python, R, and NCL.
- Developed code to visualize large geospatial data with Matplotlib.
- Wrote and maintained bash scripts for HPC schedulers.
- Communicated findings and presented results to peers.

Freelance Game Statistician

July 2016 - Present

Aug-Dec 2018

- Developed statistical analysis code in Python using combinatorics.
- \bullet Produced production-quality visualizations of complex board game statistical data.
- \bullet Provided easy-to-read, professional statistical reports to board game designers.

Research Assistant, Texas Tech Univ.

June 2014 - July 2016

- Developed numerical models to further understand the dynamics of tornadic storms.
- Maintained and analyzed large 4-dimensional datasets.
- Developed new python module to enhance file I/O from the numerical model our lab utilized.
- Communicated findings at national conferences and published a peer-reviewed paper.

Education

University of Michigan School of Information

- Master of Science in Information
 - Cumulative GPA: 3.93/4.00
 - Relavent coursework:
 - Natural Language Processing
 - Database Application Design

Texas Tech University

- Master of Science in Atmospheric Science
 - Cumulative GPA: 3.85/4.00
 - Thesis: Sensitivities of Near-Ground Simulated Parcel Trajectories
 - Relavent coursework:
 - Computational Physics

Valparaiso University

- Bachelor of Science in Meteorology
 - Cumulative GPA: 3.88/4.00

May 2020

Aug 2016

May 2014

Valparaiso, IN

Lubbock, TX

Ann Arbor, MI

Projects

Video Game Development:

• I am principal writer and sound designer for an adventure video game in development.

Database application development:

- I developed a Flask web application to display board game data using a SQLite database.
- I populated the database with data scraped from over 500 individual pages on boardgamegeek.com.

Skills

Programming Languages:

- Python (proficient)
- Flask (proficient)
- Fortran (intermediate)
- SQL (intermediate)
- HTML (intermediate)
- CSS (intermediate)
- Javascript (learning)

Technical:

- · Database management
- Data visualization
- Statistics
- · Machine learning
- · Webscraping and crawling
- Web Application develpment

Creative:

- Illustrator
- Photoshop
- Digital music composition
- · Creative writing
- Interaction design and research
- Community:
 - Teaching science and programming
 - Curriculum development
 - Project management