**Sam M. Swain**

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**EDUCATION**

**Northwestern University: McCormick School of Engineering Evanston, IL**

*Master of Science in Analytics* Jun. 2022 – Dec. 2023 (Expected)

* **Expected Coursework:** Analytics for Big Data (Spark, Hadoop, Hive, MapReduce), Analytics Value Chain

(Docker, AWS, Flask), Data Warehousing and Management (SQL, NoSQL, Neo4j/Cypher)

**University of Illinois at Urbana-Champaign: College of Liberal Arts and Sciences Champaign, IL**

*Bachelor of Science in Statistics and Economics* Aug. 2017 – May 2021

* **GPA:** 3.69/4.0
* **Relevant Coursework:** Machine Learning, Data Science, Probability Theory, Econometrics, A/B Testing

**SKILLS**

* Languages: Python (Pandas, Scikit-Learn), R (MASS, Dplyr), Java\*, JavaScript\*, CSS\*, HTML, LaTeX
* Database Management & Data Visualization: SQL, Spark\*, D3.js\*, Tableau\*
* Tools: GitHub, Excel, MS Suite, Adobe Suite \* To be expected by summer 2023

**PROJECTS**

**Analysis of Ambient Factors on Power Plant Performance** Oct. 2020 – Dec. 2020

* Analyzed the effects of temperature, ambient pressure, relative humidity, and exhaust vacuum on power plant performance
* Built a random forest model that achieved 92% accuracy when predicting if power plant output would be high or low on any given day

**Grade Distribution App** Oct. 2020 – Dec. 2020

* Created app using Python, Dash, Pandas, HTML, and Plotly that allows a user to search and display grade distributions by course of the over 15,000 instructors who teach/taught at University of Illinois Urbana-Champaign

**RELEVANT EXPERIENCE**

**Interim HealthCare of Downstate Illinois Peoria, IL**

*Analyst Intern* May 2022 – Sep. 2022

* Analyzed weekly trends to help clarify hiring needs and smooth employee retention
* Created an 81% accurate XGBoost model to predict whether a new client will be over or under 40% gross margin
* Examined revenue data to help capture clients with under 13 hours of weekly need (2000 plus hours of service)

**Ethereum Mining** Apr. 2021 – Sep. 2022

* Increased hash rate by 15% through tuning for optimal performance of mining rig

**Python in Data Science Course Assistant (STAT 430) Champaign, IL**

*Course Assistant* Jan. 2021 – May 2021

* Held office hours to assist students with homework and labs (Python, Pandas, NumPy, MatPlotLib)
* Tested homework to ensure no errors were present
* Answered student’s questions on homework/labs via class forum

**LEADERSHIP EXPERIENCE**

**Illini Esports Champaign, IL**

*Competitive & Community Coordinator* Sep. 2018 – May 2021

* Founded, governed and coached multiple competitive Fortnite teams to compete in collegiate tournaments and won over $13,000 in prize money
* Created social events for the Illini Esports Fortnite community that helped attract over 30 new members