Joseph Shallat

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Education

University of Illinois at Urbana Champaign

Bachelor of Science in Statistics & Computer Science *May 2024*

Minors in Molecular and Cellular Biology, Economics

- Dean's List
- Passionate about courses in Statistics, Machine Learning, Data Structures/Algorithms, Databases, and Discrete Mathematics

Experience

IBM *May 2022 - August 2022*

Data Scientist Intern

- Created data visualizations using Python for IBM's high-profile clients in the Financial Services industry.
- Engaged with employees working across industries to create assets to be reused in IBM's future client engagements.
- Applied modern data pipelining and machine learning techniques to various business problems.
- Presented to IBM employees regularly about my work, interests, and hobbies.

University of Illinois Statistics *August 2022 - December 2022*

Research Assistant

- Analyze correlations and perform A/B tests on Illinois App (Rokwire) data to generate insights on student life at UIUC.
- Engage in large-scale data querying and analysis with SQL and Splunk.
- Create interactive dashboards to improve visualization of relevant insights.

Kwiat Quantum Information Lab *December 2020 - January 2022*

Research Assistant

- Developed code for an open-source Python package with over 18,000 downloads
- Used Maximum Likelihood and Bayesian methods to optimize Quantum State and Quantum Process Characterization.
- Created a program that scans source code and creates an intelligent documentation page with hyperlinks in HTML.
- Designed and maintained a website that houses documentation and useful applications that perform quantum computations.
- Read, Analyze, and present research papers to group members to increase my understanding of quantum mechanics.

Personal Projects

Custom LEGO topography map *June 2022 - current*

- Wrote image processing code in Python to convert a topographical map of a lake into a 4ft X 4ft LEGO set.
- Generated custom instructions used in the building of the physical set.
- Actively compartmentalizing code and converting into a Python package to be used for creating topographic LEGO sets.

Chicago Crime Web Application *January 2022 - May 2022*

- Created a Flask web application to access Chicago crime records stored in a SQL database.
- Allowed custom searches on both Crime Type and Location.
- Performed analysis on Crime records using weather and holiday data.

Skills

Languages: Python | C/C++ | R/Rmd | SQL | Java | Javascript | HTML/CSS | Spanish

Technology: Git | Flask | Scikit-Learn | TensorFlow | Splunk | MATLAB | Google Cloud | IBM Cloud