Colton Barger
cbarger233@gmail.com
cbarger.com

Education

M.A. Applied Mathematics, (2021)
Bowling Green State University

B.S. Physics, Minor in Mathematics (2019)
Pennsylvania State University

IP Services, Inc.

Brand Protection Analyst (August 2021 - Present)

- Compile detailed stats reports using SQL to present to higher-ups and clients
- Develop Python scripts to automate the collection of data and uploading to dashboards for client viewing
- Identify and take down counterfeit offerings of client products on online marketplaces

Fraud Analyst (June 2021 – August 2021)

- Evaluated data associated with e-commerce activity to distinguish fraudulent transactions from legitimate purchases
- Helped identify and ban thousands of bad actors from online platforms

Bowling Green State University

Graduate Student Instructor (July 2019 – May 2021)

- Instructor of record for first-semester calculus and college algebra courses
- Designed own lesson plans and worksheets for use in classrooms
- Experience teaching virtually through Zoom

Pennsylvania State University

Student Research Assistant, Physics (2017-2019)

- Developed software to automate data collection and analysis
- Laid groundwork for model to predict band gaps of semiconductor materials
- Applied statistical methods to predict electrical properties of real materials
- Contributed to publication in Journal of Applied Physics: https://aip.scitation.org/doi/abs/10.1063/1.5094440

Projects

Analysis of Rotten Tomato Reviews

Scraped reviews for 100 movies and used the reviews to create a neural network to predict the sentiment of online reviews.

Achieved a model with 90% accuracy in predicting sentiments.

Automatic Web Scraping and Visualization of Gold Prices

Built a script to automate the daily collection of gold prices in an MMO game.

Helped to visualize when currency duplication or game exploits occur.

Comparing NHL Players' Shots Using a Web Application

Built a web application to compare shooting statistics between NHL players.

Exploratory Data Analysis of Chess Games Dataset

Explored common openings in chess games and how they can affect win rates.

Developed an algorithm to detect suspicious online chess players.

Skills

Programming		**Python Data Analysis**	**MS Office Suite**	**Data Visualization**
Python	R	Pandas	Excel	Tableau
PostgreSQL, MySQL	MATLAB	Matplotlib	Word	Plotly Dash
C++	Git	Seaborn	PowerPoint	Streamlit
Linux/Unix				