Harrison Hall

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Skills

Proficient: Python, HTML, CSS, JavaScript, Git, Jupyter, Web-Scraping, Data Wrangling, Data Cleaning, Communication, Public Speaking;
Familiar: Natural Language Processing, R, C++, PHP, Tableau, SEO, Social Media Management;

Education

Bachelor of Science: Data Science.
University of Michigan | 2017 - 2021
- Coursework: Statistics, Python, Data Visualization, Web-Scraping, HTML, Statistics, Algorithms & Data Structures, Network and Game Theory.

Experience

Website Designer
University of Michigan – Ford School of Public Policy | Jan. 2019 (Current)
- In coordination with a Senior Web Designer, design, build and update a project website analyzing and presenting data on Michigan school districts;
- Programming technologies used: HTML, CSS, XML, JavaScript, PHP, APIs, and MySQL.

Teaching Assistant
University of Michigan – School of Information: SI 405 | Sept. 2019 – Dec. 2019
- Assist Professors in designing, implementing and grading course materials for SI 405: Senior Final Project Preparation Course.

Data Engineering Intern
Simporter | May 2019 – Aug. 2019
Kiev, Ukraine.
Responsibilities:
- Working with a team of data scientists to establish scalable SaaS infrastructure in Python. My role was to propose and implement solutions to existing/future data gaps.
- Automating the collection & formatting of massive datasets to predict Consumer Demand

Skills Practiced:
- Data Analysis: Research, scrape data, clean, analyze with NLP / predict with Machine Learning, & output data about Consumer-Packaged Goods (for example, toys) products with the largest retailer in Europe.
- Data Engineering: Construct data pipelines with sources like Twitter, Facebook, YouTube, and Google Trends, including cleaning and preliminary analyses.
- Web Development: Designed & developed web prototypes to visualize data for users
- Leadership: Small team (< 20) required me to often lead data engineers.

Student Researcher
University of Michigan – Undergraduate Research Opportunity Program | Nov. 2018 – Apr. 2019
Ann Arbor, Michigan. Mentor: Barbara Ericson, School of Information
- Utilize particular Google APIs, web scraping and visualization tools to analyze reported data from high school A.P. Computer Science exams, in Python.
- Study disparities in computer education programs across the country with the intent of mapping correlations between socio-economic variables and educational access.

Michigan Dining Staff – Oxford Dining Hall
The University of Michigan | Oct. 2018 – Apr. 2019
Ann Arbor, Michigan.
- Assist in the production and serving of meals, particularly as a cook.
- Fulfill duties assigned, including coordinating and delegating necessary actions to dining staff team members.

Policy Debate Coach
The Westminster Schools | Sept. 2018 – Apr. 2018
Atlanta, Georgia.
- Educate and train younger members of my high school's debate team on current events and argumentation strategies.

Intern
McElderry & Associates | May 2017 – Aug. 2017
Atlanta, Georgia.
- Organize and manage confidential tax documents, create and implement a complete redesign of the firm's network server drive.

Social Media Presence Specialist
Brillify | Oct. 2016 – Feb. 2017
Atlanta, Georgia.
- Manage the company's Facebook and Instagram accounts, communicate with designers on advertisement campaigns, and conduct SEO analyses.

Extra-Curricular Activities

Policy Debate
The University of Michigan, The Westminster Schools | 2011 - current
Ann Arbor, Michigan. Atlanta, Georgia.
- Compete at national tournaments arguing both sides of governmental issues including NSA bulk metadata collection, executive authority and China economic engagement.
- Champion of the National Debate Coaches Association National Championship tournament (2017), champion of the Barkley Forum National Debate Tournament (2016).
- Recipient of the Alan A. Lewis Memorial Award (2016) and the Forensics Award (2017).
  Both awards are given to one student annually for excellence in forensics and academics.

Projects

Client Website Redesign
The University of Michigan, School of Information: SI 339 | Nov. 2019 – Dec. 2019
- Goal: Work with a team of 3 to completely recreate a client's personal portfolio website to fit professional and personal needs;
- Back-end development created from scratch in HTML, front-end design utilized CSS and JavaScript;
- Cache updates in shared repository via Git;
- Final result: https://harrhall.github.io/Outside-Portfolio/

Twitter Natural Language Processing
The University of Michigan, School of Information: SI 206 | Nov. 2018 – Dec. 2018
- Goal: Create automated sentiment analysis tool of any searchable hashtag using Twitter API
- The intent of this system is to let digital marketers easily identify and analyze keywords of interest. Twitter platform was used due to its API accessibility.
- Collected the top 100 results of any given hashtag or username using Natural Language Processing and HTML with the Twitter API
- Cached variables from the results in a .json file for further analysis
- Sorted results in a SQLite3 database by number of retweets and likes

GoodReads Book Review Analysis
The University of Michigan, School of Information: SI 206 | Oct. 2018 – Nov. 2018
- Goal: Analyze trends in the most popular books for any given decade using the GoodReads API
- Allows researchers to understand changes over time in popularity of books for variables such as number of pages and genres.
- Collected and deciphered multi-variable data using HTML and BeautifulSoup with the GoodReads API
- Conducted quantitative calculations to create a rankings system
- Managed a large SQLite3 database that allows users to sort and search results
- Visualized results with MatPlotLib for ease of interpretation

Connect 4 Artificial Intelligence
The University of Michigan, Electrical Engineering and Computer Science: EECS 183 | Oct. 2017 – Dec. 2017
- Goal: Utilize knowledge in game theory and machine learning to create a nearly unbeatable Connect 4 opponent
- Created an advanced-strategy AI to play Connect 4 with C++ with a pre-set game board
- Program was selected as the winner of the 2018 Project Showcase hosted by the University of Michigan Engineering School