Evanston, Illinois

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Skills

Programming Languages: Python, R, Java, SQL, bash, HTML/CSS, JavaScript
Data Systems & Management: Spark, Cassandra, Docker, HDFS, Kafka
Technical Skills: Source and Version Control (Git/Github), Project Management (Jira), Jupyter, Google Cloud Platform (VM instances, API applications), Custom Environments (conda), Spreadsheets (Excel)

Projects

Project Sample: Key/Value Storage Service – Python, gRPC, Docker, OOP
Overview: Server/client storage service which stores randomly generated key/value (string, int) pairs in a dictionary via RPC calls from a simulated client to the designed server, deployed with Docker
  - ➢ Server inherits NumStore service containing two RPCs SetNum and Fact, which updates a key/value pair and computes the factorial of the value associated with the passed in key argument, respectively
  - ➢ Increased efficiency by use of a LRU cache structure (size = 10) which keeps recent slow computations so they don't recompute if passed in again
  - ➢ Implemented threading and locking to maximize efficiency of the client's communication with the server and the server's computing resources when request is received

Work Experience

Research Computing Facilitator Assistant *CHTC, UW-Madison*   Spring 2022 - Present
(CHTC – Center for High Throughput Computing at UW-Madison – https://chtc.cs.wisc.edu/)
  - ➢ Closely collaborate with lead facilitator Christina Koch on tasks that manage CHTC's functionality in relation to user interactions, intra-center data flow, and integrating new processes into existing ones
  - ➢ Re-structure defunct, unorganized, and inefficient processes by implementing automating scripts, consolidating data sources, and standardizing all data handled by facilitation team
  - ➢ Test CHTC's HTC/HPC software *HTCondor* for processing bugs when handling GPU jobs and workloads
  - ➢ Develop Python scripts that automate the movement of data from a variety of HTCondor usage outputs to a methodically organized repository that can be accessed for further analysis on trends
  - ➢ Co-manage facilitation team Github repositories housing scripts, reports, raw and processed data, and more
  - ➢ Generate periodical reports by transforming raw data into presentable reports that relay usage trends broken down to the college, department, and individual user level for facilitation and funding team

Education

Senior, University of Wisconsin - Madison   Expected Graduation: Spring 2024
Data Science (B.S.) and **Information Science (B.S.)** with certificate (minor) in **Computer Sciences**
Cumulative GPA: 3.20   -   **3.48** in-major (Fall 2021 - present)   -   **Dean's List** (SP23)
  - ➢ Changed major/career path from Biochemistry (Spring 2021)
  - ➢ dotData Club Member, Web Development Club Member

Coursework

Relevant Coursework: Calculus I-II, Programming I-III, Data Science Programming I-II, Data Modeling and Statistics I-II, Elementary Matrix and Linear Algebra, Applied Categorical Data Analysis, Introduction to Big Data Systems, Applied Database Design, Web Design for the Sciences, Interactive Systems Design