Joe Rickard

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PROJECTS

Dalvonic: This project started as an entry for HackCU 2016. It is an application that uses NLTK to provide a user with visual opinion analysis. Data is taken off Twitter, related by user ID and hashtags, allowing us to display the opinions of an individual up to the whole world, on one or more topics. This was written in Python using the Flask framework; CSS and JavaScript made up the front-end.

Linear Algebra Library: I've taken the time to write a C++ library to complete linear algebra functions for data analysis. While some already exist, I used this as an opportunity to further cement my understanding of the maths. With this Library I can take CSV inputs from a data set and end with node coordinates from a spectral clustering algorithm. This allows a user to visualize data similarity and distribution with a front end library such as D3 or CSS.

Neural Network: I've worked with the N.E.A.T. machine learning algorithm, attempting to optimize energy usage in heating a building. This work was done using C++. My models never reached a level of complexity where the results were usable, but the experience was valuable nonetheless. I am still interested in this problem, and intend to continue development on environmental control algorithms.

SQL Query Work: I've done freelance SQL Query production for a Boulder start-up aiding their new version release. This included writing new queries, updating old queries, and optimizing much of the existing code. This was using mySQL through SequelPro.

COMPUTER SKILLS

Languages: C++, Bash, SQL, Python, Assembly.
Web Development: HTML, CSS, JavaScript, Apache, D3
Github: /joerickard

EXPERIENCE

IT Administrator   Lab for Atmospheric and Space Physics
02/15-Present   Boulder CO
I've worked with customers directly, solving their issues on Windows, OSx, RHEL, and Solaris. I have also dealt with VMWare, Docker, Chocolatey, Nougat, Landesk, and Agile workflows in a professional environment.

Data Analysis   First Analysis
06/13-08/13   Chicago IL
Over this short internship I collected and summarized financial data sets. I earned my MOS certification in Excel over this period.

Barista-Manager   Alchemy Coffee House
06/10-08/14   Wilmette IL
I worked in this coffee shop through highschool. As one of two/three employees total, my job consisted of everything from stock management to actually serving beverages.

EDUCATION

University of Colorado, Boulder, CO
Seeking Bachelors: Computer Science and Mathematics, expected May 2018