

Joe Rickard

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EDUCATION

University of Colorado, Boulder, CO

BA in Computer Science and Mathematics, expected May 2020

Notable Courses: Performant Linear Algebra, Computational Linear Algebra, Concurrent Programming, Data Analysis Algorithms, Data Statistics, Database Systems

EXPERIENCE

Password Ping

August 2018

Data Management

Boulder, CO

My work at Password Ping involved maintenance and development of a credential integrity verification API. A portion of this role was indexing millions of new credentials leaked online each day. This data was stored in a large MongoDB database, totalling over 5 billion unique credentials. This database was designed with hashed table relations, ensuring the data was efficiently searchable and secure against any possible security breach.

Deep Root Analytics

May 2018

Statistical Analysis Internship

Washington, DC

This internship involved independent work on a number of disparate projects. My most impactful accomplishment was designing a model for targeting specific demographics through television ads. I implemented a semantic analysis of a large television viewership data set from Tivo. Beyond this, I developed a data ingestion pipeline that pre-processed large incoming data streams, and developed new data sources that improved model accuracy.

The Trade Desk

May 2017

Technical Internship

Boulder, CO

At The Trade Desk I worked on the embedded tracking pixel scripts which collected unique browsing data and improved ad targeting. This work required extreme attention to edge case handling, as most of the errors my code resolved stemmed from rare conflicts with partner servers. My particular contribution improved worst-case performance, allowing for customer data collection without compromising content load times.

Toys2Life

October 2016

BLE and Language Model development

Boulder, CO

At toys2life I made significant additions and improvements to an existing C# code-base. The code processed signals from BLE radios in dolls, providing relative location and orientation. With this data I developed contextual language models for the dolls' conversations.

Competitions

I have attended 3 coding competitions hosted on-campus. At my first in 2017, I developed a web-app for semantic analysis of social media posts. My team was awarded second place for this effort. At my second I developed a visualization of election district statistics and the database that provided them. At my most recent I expanded my second project to include voter information. The work yielded a database containing about a dozen data points on over 200 million Americans, programmatically collected from across the internet. This project earned first place.

Languages: C++, C#, Scala, Python, Bash, MySQL, PostgreSQL, MongoDB

Github: /joerickard