

JOE LEDGER

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EDUCATION

Case Western Reserve University (CWRU)

Cleveland, OH

M.S. in Computer Science

Expected Graduation: Spring 2018

Graduate GPA: 4.0

B.S. in Computer Science

Expected Graduation: Spring 2017

Undergraduate GPA: 3.56

WORK EXPERIENCE

CWRU Department of Computer Science

Summers: 2015, 2016

Undergraduate Researcher

Cleveland, OH

- Summer 2016: Worked on Indexed Personalized Page Rank
 - Accelerated Personalized Page Rank (PPR) computations by using precomputed proximity vectors.
 - Results are promising: 50% speed increases for selected parameter settings.
- Summer 2015: Worked on the Cell Line Classification Project
 - Used machine learning algorithms (Support Vector Machines and Decision Trees) to classify cell lines by their reaction to the cancer drug SMAPs using gene expression and IC50 data.
 - Presented results at the 2015 CWRU Data Science Symposium and 2016 Research ShowCase.

BldgScout

Summer 2016 - Present (Part Time)

Backend Development Intern

Cleveland, OH

- Fixed security issue with existing UnVolt Engine involving the processing of user passwords.
- Prototyped new version of the UnVolt Engine using Java Spring Boot and PostgreSQL.
- Designed and implemented scalability and correctness tests for all API endpoints.

CWRU Office of Sustainability

Spring 2016 (Part Time)

Green Lab Auditor

Cleveland, OH

- Developed a desktop application using PyQt that creates customizable visualizations from sensor data.
- Application is used by lab auditors who write reports on how behavior changes could save energy.

RELEVANT COURSEWORK

Software Engineering, Software Craftsmanship, Programming Language Concepts, Computer Networks, Database Systems, Data Mining, Machine Learning, Algorithms, Data Structures

TECHNICAL SKILLS

- Highly Proficient with programming languages Java and Python.
- Proficient with SQL.
- Some experience with C, C#, Scheme.
- Experience with data science tools Pandas, Scikit-learn, SciPy, and NumPy.
- Experience with Cross-Platform Desktop Application Development with PyQt.
- Experience with REST API development with Java Spring Boot.

HONORS AND AWARDS

- Alumni Association Outstanding Junior/Senior Scholarship Spring 2016 - Present
- Dean's Honor Roll Spring 2014 - Present
- Varsity Athlete (Cross-Country, Track & Field) for CWRU August 2013 - Present