

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

Minor: Applied Data Science

Undergraduate GPA: 3.56

Bronx High School of Science

Graduated: Spring 2013

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 UnVolt Engine using Java Spring Boot.
- 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 that creates customizable visualizations from energy sensor data.
- Application is used by lab auditors who write reports on how behavior changes could save energy.

RELEVANT COURSEWORK

Data Mining

High Performance Scientific Computing

Machine Learning

Software Engineering

Database Systems

Computer Networks

Algorithms

Software Craftsmanship

*Courses in **bold** were taken at the graduate level.

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.
- Experienced with Git, Linux Command Line, LaTeX.
- Experience with Cross-Platform Desktop Application Development with Qt.
- Experience with REST API development with Java Spring Boot.

HONORS AND AWARDS

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|--|-------------------------------------|
| · University Merit Scholarship | August 2013 - Present |
| · Alumni Association Outstanding Junior/Senior Scholarship | Spring 2016 - Present |
| · Dean's High Honor Roll | Spring 2014, Fall 2014 |
| · Dean's Honor Roll | Spring 2015, Fall 2015, Spring 2016 |
| · Varsity Athlete (Cross-Country, Track & Field) for CWRU | August 2013 - Present |
| · 4x UAA All-Academic Team | Spring 2014 - Present |