

Andrew Theis

Seattle, WA 98109

419-410-2998

andrewtheis4@gmail.com

LANGUAGES

Python	PHP
Java	Ruby
JavaScript	SQL

PROJECTS

Cairo Pentagon

A generative art project in Python and JavaScript through the use of arabic geometry.

3D Sort

Three-dimensional scatter plots of Impressionist paintings.

SeekHue

A Python-Django web app which deconstructs paintings and analyzes the use of color throughout Western Art History.

Destructive Interference

Pattern-based exploration of quantum mechanics through digital and spraypaint and stencil printmaking.

SKILLS

Distributed Computing
SGE Cluster
VC (GitHub, BitBucket)
Jenkins CI
Test Driven Development
Pytest
Docker
MySQL
ORM
Database Design/Implementation
Full-Stack Web Development
Critical Thinking
Strong Attention to Detail
Public Speaking

Experience

Data Analyst – December 2016 to present

Seattle, WA – Institute for Health Metrics and Evaluation

- Reduced computation time by 67% for core research software by adding process monitoring, updating parallelization over a distributed computing network, and increasing I/O efficiency by leveraging several HDF5 formats.
- Sped up development for new features in shared Python libraries by implementing new data abstractions, adding thousands of lines of test coverage, and writing in strong PEP 8 style with clear and extensive documentation.
- Extended existing libraries and shared tools, laying the foundation for new areas of global health research for academic publication.
- Created deployable Python packages utilizing Docker containers to mock institution databases in test suites, reducing the number and frequency of failed tests on our continuous integration server.
- Designed and built an ORM with SQLAlchemy to recursively process database updates and downstream dependencies, creating an interface for generating statistical analyses over custom hierarchies in real-time.
- Built web applications with a Python-Django framework, Python-Flask framework, and R-Shiny, connecting researchers with their data and saving computing resources by diagnosing data issues more quickly.
- Promoted knowledge sharing by leading trainings on internal tools, answering hundreds of help tickets, joining programming book clubs, and offering debugging support at weekly code drop in sessions.

Education

PDX Code Guild – Portland, OR – July 2016

Passed with distinction. 12-week, intensive Python web development bootcamp.

Willamette University – Salem, OR – May 2011

Bachelor of Arts, Studio Art

Certifications & Professional Development

University of Washington – Computer Science and Engineering

CSE 341: Programming Languages

CSE 143: Computer Programming II

Cumulative GPA: 3.5 / 4.0

edX: DAT210x – Fall 2016

Verified Certificate for Programming with Python for Data Science. Machine learning with Pandas, Numpy, and Scikit-learn.