Philip Robinson

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https://github.com/probinso

Personal Statement

I am currently a masters student at OHSU, studying computer science with a focus in signal processing and machine learning. In my several years of industry experience and prior degree, I developed strong interests in cryptography, reproducible research, statistical computing, and programming languages. I have adapted to, and adopted, a new or tool-set in nearly every challenge I have taken on. My interest in teaching and writing has also gained me strong communication skills.

Persistant Experience :

Python	C, C++	Linux	TDD
R, dplyr	LaTeX	Git	Ticketing Systems

Work Experience

NASA Jet Propulsion Lab — **Graduate Research Intern** — **June 2018 – Sept. 2018**

- Designed prototype system from meetings with top NASA employees for mission risk assesment
- Developed Subject Matter Expert identifier, by extending the Author-Topic-Model
- Implemented stable/principled text normalization, tokenization, and model evaluation
- Open Source contributions to the gensim's natural language processing library

Technologies : Python, gensim, pandas, jupyter

OHSU Fair Neuroimaging Lab — **Research Support Engineer** — **Oct. 2017 – June 2018**

- Contributed to workflows and analytics tools for studying Microbiome populations
- Supported research on developing brains, including ABCD, and several ADHD/ASD studies
- Developed processing pipeline and audit tools for reported data and FMRI images

Technologies : Python, Bash, R, neo4j, ponyorm, stan, GitLab

Contractor/Consultant

RGB Optics / C&W Energy USA — **Nov. 2015 – Present**

- Developed low cost spectral profile analysis and custom photo image processing
- Authored educational material in light pollution's effect on economy, biology, and technology
- Developed a cloud memoizing data pipeline for caching computationally expensive operations
- Provided live technology tutorials and consulting on optimization and image processing

ComScore — **June 2016 – Sept. 2016**

- Worked to support large, custom, memory mapped, data store for demographic analysis

PDXCodeGuild — **June 2016**

- Developed and taught introductory python course material for coding boot-camp

Melinae — **March 2016**

- Setup infrastructure in AWS to enable secure sustainable remote-first workflow
- Provided hands on training in Python and R to industry professionals

Technologies : Python, numpy, skimage, R, AWS, PostgreSQL, Perl, C++, Jira, ZenHub

Galois Inc. — **Research Engineer** — **April 2014 – Dec 2015**

- Contributed to PPAML, Overseas Voting Foundation, Safeware, Robot Fast Track
- Developed processing pipelines and workflows to enable evaluator work for DARPA programs
- Produced biannual quantitative and qualitative reports on for DARPA and language developers
- Participated in programs sharing new technologies to research and industry professionals

Technologies : Python, SLURM, Scala, Figaro, Chimpy, Docker, Jira, Basecamp

EMC^2 Isilon Storage — **Software Development Engineer** — **Dec. 2012 – July 2013**

- Brought to schedule a lagging anchor release feature in approximately 5 months
- Designed and developed password manager to support Data At Rest Encryption
- Wrote unit tests using libcheck to attain > 80% code coverage

Technologies : C, C++, Python, SQLite, Subversion

Computer Science Dept. — **Mentors Program Director** — **Sept. 2009 – March 2012**

- Provided safe environment for training and instruction of students and mentors
- Wrote comprehensive quarterly reports, and tools for automatic report generation

Technologies : Ada, C++, Scheme, R, mercurial

Neato Projects

Whale vocals localization and analysis	***jupyter, matplotlib, scipy, Python***
Workshop collaborative introduction to GitHub and slides	***markdown, bash, github.api***
Morphological Watershedding Algorithms	***pyspark, numpy, ndimage, Python***
Relevance Vector Machine	***Julia***
Information Retrieval Cluster/Rank Demo Harness	***flask, numpy, nltk, sklearn, Python***
Gene Data Breast Cancer Drug Predictor	***R, caret***
Distributed Fully Homomorphic Encryption System	***Hadoop, Sagemath, Python***
Concurrent Elliptic Curve Cryptography Module	***Sagemath, Erlang***
Multilingual Analysis of Subordinating and Coordinating Conjunctions	***R, Perl***
AdaRailz Concurrent Model Train Control System	***Ada***
Fractal Art Generator	***C#***
Image Manipulation Program	***C#***
Unix Shell	***C***
Liars Dice Game Server	***C***

Education

Oregon Health Science University — CSLU

Computer Science MSc
2016 - present

Courses :

Digital Signal Processing
Problem Solving with Large Clusters
Image Processing
Machine Learning
Information Retrieval
Computing Ethics
Statistical Methods
Univariate Statistical Analysis
Analysis of Sequences

Western Washington University — Computer Science

Computer Science BS, Mathematics Minor
Sept. 2007 - June 2012