Philip Robinson

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https://github.com/probinso

Personal Statement

I am currently a masters student at Oregon Health and Sciences University's Center for Speach Learning and Understanding, studying computer science with a focus in signal processing and machine learning. From my 5 years industry experience and BS at Western Washington University, I developed strong interests in cryptography, reproducable 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.

Language Experience :

⋆ Python	Julia	C, C++	LaTeX
Ada	R	Perl	

Education

Oregon Health Science University — CSLU

Computer Science MSc
2016 – present

Courses :

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

Western Washington University — Computer Science

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

Electives :

Homomorphic Encryption Systems	Computer Graphics
Cryptography & Elliptic Curves	Number Theory
Artificial Intelligence	Elementary Real Analysis
Natural Language Processing	Abstract Algebra
Functional Programming	Linear Algebra I/II

DCAN/Fair Neuroimaging Lab
– Research Engineer — **Oct. 2017 – present**

Contributed to workflows and analytics tools for studying Microbiome populations
Supported research efforts studying of developing brains, primarily in ADHD and ASD studies
Developed processing pipeline and audit tools for reported data and FMRI images
Project management guidelines, Git Czar, Release Review Manager, Team Security Representative

Languages Used : Python, Bash, R, neo4j

Independent – Contractor/Consultant

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

Provided live technology tutorials and consulting on optimization and image processing
Authored educational material in light pollution on economy, biology, and technology
Light classification engine, custom photo image processing tools, and mathematical models
Developed a cloud memoizing data pipeline for caching computationally expensive operations

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

Languages Used : **Python, R, AWS, PostgreSQL, Perl, C++**

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

Contributed to PPAML, Overseas Voting Foundation, Safeware, Robot Fast Track
Developed technologies 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

Languages Used : **Python, Scala, Figaro, Chimpy, Docker**

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

Languages Used : **C, C++, Python, SQLite**

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

Provided safe environment for training and instruction of students and mentors
Ran student/faculty meetings to project future program responsibilities
Wrote comprehensive quarterly reports, and tools for automatic report generation

Languages Used : **Ada, C++, Scheme, R**

Neato Projects

Sensor Systems and Light Pollution Analysis	***aws, sklearn, skimage, PonyORM, Python***
Morphological Watershedding Algorithms	***numpy, ndimage, Python***
Relevance Vector Machine	***Julia***
Information Retrieval Cluster/Rank Demo Harness	***flask, sklearn, Python***
N-Body Simulator	***SIUnits, Julia***
Splinqr – Shamir Secret QR Sharing	***Python***
Probabilistic-Program Profiler and Evaluator Harness	***SLURM, PonyORM, Python***
Distributed Fully Homomorphic Encryption System	***Hadoop, 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 & Image Manipulation Program	***C#***
Unix Shell	***C***