

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 Speech Learning and Understanding, studying computer science with a focus in signal processing and machine learning. From my several years industry experience and degree from Western Washington University, 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.

Language Experience :

★ Python	Julia	C, C++	ET _X
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

Work Experience

NASA Jet Propulsion Lab - Graduate Summer Research Intern June 2018 - Sept. 2018

Developing automatic Subject Matter Expert identification against failure report system
Evaluating applied topic modeling for document similarity and unsupervised clustering
Developing principled text normalization and tokenization evaluation strategies

Languages Used : Python, gensim

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

Languages Used : Python, Bash, R, neo4j, ponyorm, stan

Contractor/Consultant

RGB Optics / C&W Energy USA

Nov. 2015 - Present

Provided live technology tutorials and consulting on optimization and image processing
Light classification engine, custom photo image processing tools, and mathematical models
Developed a cloud memoizing data pipeline for caching computationally expensive operations

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, Chimp, Docker

EMC² 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

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

Whale vocals localization and analysis

Python

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