

Philip Robinson

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<https://github.com/probinso>

Personal Statement

I am currently a graduate student at Oregon Health and Sciences University, studying computer science with interest in image processing and machine learning. From my 5 years industry experience and BS at Western Washington University, I developed strong interests in cryptography, 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++	TeX
Ada	R	Perl	

Education

Oregon Health Science University

CSLU

Computer Science MSc
2016 - present

Courses :

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

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

Fair Neuroimaging Lab - Research Engineer

Oct. 2017 - present

Developed low overhead workflows and analytics tools for studying Microbiomes
Supported research efforts studying developing brains, primarily in ADHD and ASD studies
Contributed to data aggregation/processing pipeline for reported data and fMRI images
Established and oversaw best practices policies and support for varying project types
Worked in teams under multiple institutional review boards

Languages Used : Python, Bash, R, neo4j

Independent - Contractor/Consultant

RGB Optics / C&W Energy USA

Nov. 2015 - Present

Provided live technology tutorials and consulting mainly on Python 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, 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/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	<i>aws, sklearn, skimage, PonyORM, Python</i>
Relevance Vector Machine	<i>Julia</i>
Information Retrieval Cluster/Rank Demo Harness	<i>flask, sklearn, Python</i>
Gene Data Breast Cancer Drug Predictor	<i>R, caret</i>
Splinqr - Shamir Secret QR Sharing	<i>Python</i>
Probabilistic-Program Profiler and Evaluator Harness	<i>SLURM, PonyORM, Python</i>
Probabilistic WiFi Geolocation	<i>Figaro, Scala, Javascript</i>
Distributed Fully Homomorphic Encryption System	<i>Hadoop, Python</i>
Concurrent Elliptic Curve Cryptography Module	<i>Erlang, Sagemath</i>
Multilingual Analysis of Subordinating and Coordinating Conjunctions	<i>R, Perl</i>
AdaRailz Concurrent Model Train Control System	<i>Ada</i>
TwixT AI Agent and UI	<i>Java</i>
Fractal Art Generator & Image Manipulation Program	<i>C#</i>
Unix Shell	<i>C</i>