

**Philip Robinson**

Portland, OR 97219

pmoss.robinson+res@gmail.com  
206.377.9747

<http://probinso.dyn-o-saur.com>

### Personal Statement

My industry experience has exposed me to many fun technologies, fueling my interests in cryptography, probabilistic programming, and languages. I am a very quick study, as I have adopted a new programming language or tool-set in nearly every challenge I have taken on. My interest in teaching and writing has granted me strong communication skills, and solid background. See my project details at <http://probinso.dyn-o-saur.com>.

### Language Experience :

★ Python	Figaro	Julia	$\text{\LaTeX}$
Scala	Ada	C	

## Work Experience

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### Independent

### - Contractor/Consultant

#### C&W Energy

Nov. 2015 - present

Authored educational material on light pollution's effect on economy, biology, and technology  
CLI lamp classification engine, photo image processing tools, and mathematical models  
Developed a memoizing database-interface for caching computationally expensive operations

#### ComScore

June 2016 - present

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 workflow for remote company  
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

### EMC<sup>2</sup> 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

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Sensor Systems and Light Pollution Course

*sklearn, scipy, PonyORM, Python*

Splinqr - Shamir Secret QR Sharing

*Python*

Probabilistic-Program Profiler and Evaluator Harness

*SLURM, PonyORM, Python*

Probabilistic WiFi Geolocation

*Figaro, Scala, Javascript*

Cryptographic Distributed Virtual System Vectors

*$\text{\LaTeX}$ , Haskell*

Distributed Fully Homomorphic Encryption System

*Hadoop, Python*

Concurrent Elliptic Curve Cryptography Module

*Erlang, Sagemath*

Analysis of Subordinating and Coordinating Conjunctions

*R, Perl*

AdaRailz Concurrent Model Train Control System

*Ada*

TwixT AI Agent and UI

*Java*

Liars Dice Game Server

*C*

# Education

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## Post-Graduation Courses :

Agile Machine Learning	Functional Programming in Scala
Probabilistic Programming	Applied Cryptography

## University

BS Computer Science, Western Washington University (WWU)  
Mathematics Minor  
Sept. 2007 - June 2012

## Core Coursework :

Unix Software Development	Formal Languages/Automata
Windows Software Development	Programming Languages
Operating Systems	Concurrent Programming
Analysis/Design of Algorithms	Computer Organization I/II
Linear/Non-Linear Data Structures	Object-Oriented Programming in C++

## Elective Coursework :

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

## Honors and Related Activities

WWU Scholar's Week Poster Competition (Two Submissions)	- May 2012
Kryptos Cryptanalysis Challenge	- April 2012
Pacific Rim Regional Collegiate Cyber Defense Competition (Fourth Place)	- March 2012
Comap Mathematical Modeling Competition (Meritorious Winner) - Top 10%	- Feb. 2012
International Collegiate Programming Contest	- Nov. 2011
Comap Mathematical Modeling Competition (Honorable Mention) - Top 30%	- Feb. 2011
William Lowell Putnam Competition	- Dec. 2010
WWU ACM Programming Competition (First Place)	- Jan. 2010
WWU Computer Science Distinguished Scholar Award	- Sep. 2007