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  $\mathbb{E}T_{E}X$ Scala Ada

# Work Experience \_

## Independent

ComScore

## - Contractor/Consultant

C&W Energy

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

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

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

Melinae

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

Nov. 2015 - present

June 2016 - present

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

#### - Software Development Engineer EMC<sup>2</sup> Isilon Storage

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 Course Splingr - Shamir Secret QR Sharing Probabilistic-Program Profiler and Evaluator Harness Probabilistic WiFi Geolocation Cryptographic Distributed Virtual System Vectors Distributed Fully Homomorphic Encryption System Concurrent Elliptic Curve Cryptography Module Analysis of Subordinating and Coordinating Conjunctions AdaRailz Concurrent Model Train Control System TwixT AI Agent and UI Liars Dice Game Server

sklearn, scipy, PonyORM, Python Python SLURM, PonyORM, Python Figaro, Scala, Javascript ETEX, Haskell Hadoop, Python Erlang, Sagemath R. Perl Ada Java

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## Education

## 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

Cryptography & Elliptic Curves

Artificial Intelligence

Natural Language Processing

Functional Programming

Computer Graphics

Computer Architecture

Number Theory

Elementary Real Analysis

Ordinary Differential Equations

Linear Algebra I/II

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