

**Philip Robinson**

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## Personal Statement

I have 7+ years experience, solving increasingly difficult problems with software. My projects span products and research including data pipelines/management, medical informatics, programming languages, computer securities, audio, image, and text processing. I have developed strong interests in scientific computing, information retrieval, machine learning, and education. I look forward to building stable solutions with you.

## Persistent Experience :

Python	C, C++	Linux	TDD
R, dplyr	TeX	Git	Ticketing Systems

## Work Experience

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### Thinkful (Part Time) - Data Science Technical Expert Jan. 2019 - present

Advised career transitioners in mastery of professional and data science topics  
Provided safe environment for 1:1 training and instruction in a remote-first setting

### NASA Jet Propulsion Lab - Graduate Data Science Intern June 2018 - Sept. 2018

Designed & developed Expert Modeling/Recommender System, by extending the Author-Topic-Model  
Prototyped matching experts against mission critical anomalies, automating expensive tasks  
Implemented stable/principled text normalization, tokenization, and model evaluation  
Open Source contributions to the gensim's natural language processing library

**Technologies :** Python, nltk, gensim, pyLDAvis, pandas, jupyter

### OHSU Fair Neuroimaging Lab - Research Assistant 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

**Technologies :** Python, Bash, R, neo4j, ponyorm, stan, GitLab

### Contractor/Consultant

#### RGB Optics / C&W Energy USA (Part Time) Nov. 2015 - Aug. 2018

Developed custom photo image processing tools for low cost spectral profile analysis  
Authored educational material in light pollution's effect on economy, biology, and technology  
Developed a cloud memoizing data pipeline for caching computationally expensive operations  
Provided live technology tutorials and consulting on optimization and image processing

#### ComScore June 2016 - Sept. 2016

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

#### PDXCodeGuild (Part Time) 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

**Technologies :** Python, numpy, skimage, R, AWS, PostgreSQL, Perl, C++, Jira, ZenHub

### Galois Inc. - Research Engineer April 2014 - Dec 2015

Contributed to PPAML, Overseas Voting Foundation, Safeware  
Developed processing pipelines 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

**Technologies :** Python, SLURM, Scala, Figaro, Chimp, Docker, Jira, Basecamp

### 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

**Technologies :** C, C++, Python, SQLite, Subversion, FreeBSD, OpenSSL

# Neato Projects

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Topic modeling and applications, a presentation for non-statisticians	<del>ML</del> <del>X</del>
Ocean/bioacoustic anomaly localization and analysis	<b>ACOio, tensorflow, scipy, Python</b>
Workshop collaborative introduction to GitHub and slides	<b>markdown, bash, github.api</b>
Morphological Watershedding Algorithms	<b>pyspark, numpy, ndimage, Python</b>
Relevance Vector Machine	<b>Julia</b>
Information Retrieval Cluster/Rank Demo Harness	<b>flask, numpy, nltk, sklearn, Python</b>
Gene Data Breast Cancer Drug Predictor	<b>R, caret</b>
Distributed Fully Homomorphic Encryption System	<b>Hadoop, Sagemath</b>
Concurrent Elliptic Curve Cryptography Module	<b>Sagemath, Erlang</b>
Multilingual Analysis of Subordinating and Coordinating Conjunctions	<b>R, Perl</b>
AdaRailz Concurrent Model Train Control System	<b>Ada</b>

# Education

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<b>Oregon Health Science University</b>	<b>CSLU</b>
Computer Science MSc	
2016 - present	<i>Expected End: Sept. 2019</i>

**Courses :**

★ Advanced Topics in Machine Learning	★ Natural Language Processing
Deep Learning	★ Advanced Topics in Signal Processing
Machine Learning	Speech Signal Processing
Artificial Intelligence	Problem Solving with Large Clusters
Statistical Methods	Image Processing
Univariate Statistical Analysis	Information Retrieval
Analysis of Sequences	Computing Ethics

<b>Western Washington University</b>	<b>Computer Science</b>
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