

**Philip Robinson**

Portland, OR 97214

probinso+res@protonmail.com  
206.377.9747

<https://github.com/probinso>

## Personal Statement

I am soon completing a masters degree, with 7+ years industry experience solving increasingly difficult problems with software. My diverse work history spans both products and research, including data pipelines/management, medical informatics, programming languages, and computer securities, as well as audio, image, and text processing. I have developed strong interests in data analysis/exploration, information retrieval, machine learning, and data engineering. *(complete work history on request)*

## Persistent Experience :

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

## Work Experience

---

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

Fully specified programatic solution from use-case meetings with top NASA/JPL employees  
Designed & developed Expert Modeling/Recommender System, by extending the Author-Topic-Model  
Implemented stable/principled normalization, tokenization, and evaluation for NLP topic models  
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 microbiome population analytics tools, to study female reproductive system  
Supported research on developing brains, including ABCD, and several ADHD/ASD studies  
Developed processing pipeline and audit tools for reported data and fMRI images  
Acted as standards and Open Source release lead, developing and enforcing best practices

**Technologies :** Python, Bash, R, neo4j, ponym, stan, GitLab, Docker

### 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

#### 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

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

## Neato Projects

---

Multiple Myeloma Clinical Trials, custom named-entity boosted topic model	<b>numpy, Python</b>
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>
Information Retrieval Cluster/Rank Demo Harness	<b>flask, numpy, nltk, sklearn, Python</b>
Relevance Vector Machine	<b>Julia</b>
Distributed Fully Homomorphic Encryption System	<b>Hadoop, Sagemath</b>
Gene Data Breast Cancer Drug Predictor	<b>R, caret</b>
Concurrent Elliptic Curve Cryptography Module	<b>Sagemath, Erlang</b>