

**Philip Robinson**

Portland, OR 97214  
UTC-7

probinso+res@protonmail.com  
206.377.9747

<https://github.com/probinso>

## Personal Statement

I love to make hard problems into impactful software solutions and actionable or educational materials. I am an adaptable engineer, whose work history spans products and research in machine learning, science, software engineering, and security.

## Skills/Experience :

Python	C, C++	Merry-go-rounds	TDD
R, dplyr	ET <sub>X</sub>	Git	Ticketing Systems

## Work Experience

---

### Graduate Research OHSU/ACO - Deep Learning in Marine Acoustics (continuing)

Designed, developed, & managed research work in a remote environment without oversight  
Researched deep learning models to study/index bioacoustic events from a 10 year audio track  
Measured effects of adaptive spectral subtraction, for audio denoising, on models' accuracy  
Developed an intuitive ACO track explorer, to help rejuvenate data access for researchers  
Developed assignments, as TA for Deep Learning course, in using VAEs for anomaly detection  
**Technologies :** ACOio, Keras, tensorflow, PyTorch, scipy.signal, Jupyter, flask, Angular

### HappyWhale - Staff Software Engineer March 2019 - present

Contributed as full stack developer on a small team, in both remote and onsite environments  
Developed Polar Collective App, a cross platform tool to manage citizen-science projects  
Maintained and contributed to user tools for individual whale identification and tracking  
**Technologies :** NativeScript, Angular, node.js, Android, iOS, PostgreSQL, Java, Spring

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

Designed & developed Expert Modeling/Recommender System to rank-match engineers to tasks  
Fully specified programmatic solutions from use-case meetings with top NASA/JPL employees  
Open Source contributions to the gensim natural language processing library  
**Technologies :** Python, nltk, gensim, pyLDAvis, pandas, Jupyter, Author-Topic-Model, LDA

### OHSU Fair Neuroimaging Lab - Research Assistant Oct. 2017 - June 2018

Contributed to microbiome population analytics tools to study female reproductive system  
Developed processing pipeline and audit tools for reported and FMRI data, on ADHD/ASD studies  
Acted as Open Source and Securities lead, developing trainings and enforcing best practices  
**Technologies :** Python, Bash, R, neo4j, ponyorm, stan, GitLab, Docker

### RGB Optics (Part Time) - Remote Contractor/Consultant Nov. 2015 - Aug. 2018

Developed custom photo image processing tools and pipelines for low cost spectral analysis  
Authored educational material in light pollution's effect on economy, biology, and technology  
Developed natural language processing tools to organize and explore Myeloma clinical trials  
Provided technology tutorials and consulting on code optimization, NLP, and image processing  
**Technologies :** Python, skimage, sklearn, AWS, spark, CLiNER, Morphological Watersheds

### Galois Inc. - R&D Software 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  
Contributed to PPAML, Overseas Voting Foundation, Safeware, Robot Fast Track  
**Technologies :** Python, SLURM, Scala, Figaro, Chimpy, Docker, Jira, Basecamp

---

## Oregon Health Science University

Computer Science MSc  
2016 - present

## Machine Learning

## Western Washington University

Computer Science BS, Mathematics Minor  
June 2012

## Computer Science & Cryptography