

# Philip Robinson

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UTC-8

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<https://github.com/probinso>

## Personal Statement

I'm an experienced Software Engineer / Data Scientist interested in interdisciplinary work in environmental, social good, citizen science, & computer security projects.

## Skills/Experience

Research MVPs	Linux Systems	Education/Mentoring	Ticketing Systems
ML/Data Sciences	Remote Work	Communication	Rubber Ducking

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### GrammaTech - R&T Machine Learning Engineer March 2020 - present

Transferred NLP research to binaries in decompilation/reverse engineering applications  
Performed research & evaluated ML work on compiled binaries in vulnerability detection  
Developed feature extraction & ML training pipelines supporting DARPA programs  
Completed technology transfer of university research work to release products

**Technologies :** Python, C, PyTorch, RetDec, asts.AST, GTIRB, Docker, celery, GitLab.ci

### HappyWhale - Mobile / Full Stack Developer March 2019 - March 2020

Developed Polar Collective App, x-platform phone app supporting citizen science projects  
Core developer for web user tools in sighted whale logging, identification, & tracking  
Developed data & access points supporting researchers in population ecology projects

**Technologies :** Native/TypeScript, Angular, Android/iOS, PostgreSQL, Java, Spring, firebase

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

Developed employee Expertise Recommender System, automating expensive critical tasks  
Designed & completed prototype from research papers & advisement of top NASA/JPL employees  
Presented & defended NLP/ML prototype to non-computational decision makers at JPL

**Technologies :** Python, nltk, gensim, pyLDAvis, pandas, Jupyter, Author-Topic-Model, LDA

### OHSU DCAN Neuroimaging Lab - Graduate Research Assistant Oct 2017 - June 2018

Contributed to microbiome population analytics, studying menopause & reproductive health  
Developed processing pipeline & audit tools for survey & fMRI data, on ADHD/ASD studies  
Provided git, Project management, & and security trainings for various readiness levels

**Technologies :** Python, Bash, R, dplyr, phyloseq, neo4j, ponyorm, stan, GitLab, Docker

### Graduate Research CSLU/ACO - Machine Learning (Audio Data) Sept 2017 - Dec 2019

Implemented & transferred anomaly detectors from research papers to marine bio-acoustics  
Measured effects of spectral subtraction & deep noise reduction techniques on ML models  
Developed ACOio track explorer, enabling research on (10 yr/12 TB) continuous audio track

**Technologies :** ACOio, Keras, tensorflow, PyTorch, scipy.signal, Jupyter, flask, Angular

### RGB Optics (Part Time) - Volunteer/Mentor Nov 2015 - present

Developed image processing tools for low cost spectral analysis, to study light pollution  
Authored training material on effects of light pollution on economy, biology, & technology  
Consultant on statistics, image processing, and optimizations for low cost medical tests  
Developed natural language processing tools to organize & explore Myeloma clinical trials  
Provide technology tutorials/consultation on code optimization, NLP, & image processing

**Technologies :** Python, skimage, sklearn, AWS, CLiNER, Morphological Watersheds, OpenCV

### Galois Inc. - R&D Software Engineer April 2014 - Dec 2015

Developed processing pipelines & workflows to enable evaluator work for DARPA programs  
Helped run professional trainings to disseminate new probabilistic programming languages  
Produced biannual quantitative & qualitative reports for DARPA & other PPAML teams

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

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### Oregon Health Science University

Computer Science & Machine Learning  
Masters of Science  
2016 - 2019

### Western Washington University

Computer Science & Cryptography  
Bachelor of Science, Math Minor  
2007 - 2012