

# Philip Robinson

Portland, OR  
UTC-8

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<https://github.com/probinso>

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

## Skills/Experience

ML/Data Sciences  
Prototypes

Linux Systems  
Remote Work

Education/Mentoring  
Communication

Ticketing Systems  
Rubber Ducking

## Technologies

Python/PyTorch/sklearn  
C/C++

R/dplyr  
Angular/NativeScript

skimage/scipy.signal  
Docker

Gtrib/Dwarf/asts.AST  
AWS/GCP/firebase

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### GrammaTech

- R&T Machine Learning Engineer

March 2020 - present

Conducted language processing research to increase legibility in binary decompilation tasks  
Performed research & evaluated ML work on compiled binaries for vulnerability detection  
Implemented and incorporated solutions from academic research code to release products  
Participated in authoring & reviewing SBIR/STTR proposals for DOD/DARPA solicitations

### HappyWhale

- Mobile / Full Stack Engineer

March 2019 - March 2020

Developed Polar Collective App, a x-platform phone app supporting citizen science projects  
Developed core user tools for tracking whale sightings and individual identification  
Contributed to data & access API supporting researchers in population ecology projects

### NASA Jet Propulsion Lab

- Graduate Data Science Intern

June 2018 - Sept 2018

Developed employee expert recommender system, eliminating weeks in ticket triage/assignment  
Designed & completed prototype from research papers & advisement of top NASA/JPL employees  
Defended unconventional application of topic model (LDA) to data science team at JPL

### 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, & security trainings for teams with varying backgrounds

### Graduate Research CSLU/ACO

- Machine Learning (Audio Data)

Sept 2017 - Dec 2019

Developed deep anomaly detectors for marine acoustics from signal processing research  
Developed ACOio track explorer, enabling research on (10 yr/12 TB) continuous audio track  
Measured effects of spectral subtraction & deep noise reduction techniques on ML models  
Led & enabled a four week community data deep dive series through PDSG on marine acoustics

### RGB Optics LLC

- Volunteer Developer & Consultant

Nov 2015 - present

Developed remote sensing tools for low cost spectral analysis in light pollution surveys  
Provided image processing consult on low cost infant hypoxic ischemic encephalopathy tests  
Developed natural language processing (NLP) tools to explore Myeloma clinical trials  
Provided technology trainings/consultation on code optimization, NLP, & image processing

### 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  
Wrote on disenfranchisement under Free & Fair for secure internet voting feasibility study  
Produced biannual quantitative & qualitative reports for DARPA & participating PPAML teams

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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