

# Philip Robinson

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<https://github.com/probinso>

I'm a Scientific Programmer / Machine Learning Researcher driven by interdisciplinary work in natural sciences, security/privacy systems, OSInt & citizen sciencery.

## Skills/Experience

Machine Learning	Prototypes	Remote Work	MLOps/DevOps
Data Sciences	Linux Systems	Education/Mentoring	Rubber Ducking

## Technologies

Python/PyTorch/sklearn	R/dplyr	GDAL/cartopy/ESA-SNAP	AWS/GCP/firebase
C/C++	skimage/scipy.signal	Gtirb/Dwarf/asts.AST	Docker

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### Blue Oasis - Digital Twin Engineer (Ocean Science) June 2025 - present

Contributed to multi-label edge marine acoustics ML pipeline, to track vessels & marine life  
Worked with acoustics researchers to develop & implement custom features for event detection  
Full stack security & performance work on flagship customer facing analytics & IR dashboard

### Global Fishing Watch - Scientific Programmer (Satellites) May 2022 - March 2025

Implemented remote sensing pipeline for detecting vessels & matching to reported GPS locations  
Evaluated vessel detection over terrabytes of processed synthetic aperture radar (SAR) images  
Developed gfwsat to join & catalog millions of satellite scenes, serving global ocean surveys  
Developed custom offline satellite image lat/lon labeler supporting points, shapes & paths  
Led technology transfer work, moving research prototypes to production & automated pipelines

### GrammaTech - Machine Learning Researcher II March 2020 - April 2022

Research on binaries in vulnerability detection & improving code legability from decompilation  
Developed feature extraction pipeline over hosted virtual machines on terrabytes of data  
Implemented, verified & incorporated ML/DL code from academic research into release products  
Participated in authoring & reviewing SBIR/STTR proposals for DOD/DARPA funding solicitations

### HappyWhale - Mobile & Full Stack Engineer March 2019 - March 2020

Developed x-platform citizen science phone app for eco-tourism & wildlife population surveys  
Developed core tools for tracking marine life sightings & individual whale identification  
Contributed to data access API & web UI, supporting researchers in population ecology studies

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

Prototyped employee expert recommender system, to eliminate weeks in ticket triage/assignment  
Designed & completed prototype from research papers & advisement of top NASA/JPL employees

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

Analyzed relationship of adjacent microbiome populations for menopause & reproductive health  
Developed processing/audit tools for survey & fMRI data to support ABCD study for ADHD/ASD  
Provided git, project management & security trainings for teams with varying readiness levels

### Masters Research (OHSU) - Machine Learning (Marine Acoustics) Sept 2017 - Dec 2019

Developed track explorer for 10YR continuous audio track, supporting Aloha Cabled Observatory  
Developed anomaly detectors for noisy marine acoustics, based on variational auto-encoders  
Measured effects of spectral subtraction & DL models to reduce noise & improve audio quality

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

Developed processing pipelines & workflows for evaluator work on multiple DARPA SBIR programs  
Helped run professional trainings to disseminate new probabilistic programming languages  
Wrote on disenfranchisement under Free & Fair for secure internet voting feasibility study

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**Oregon Health Science University**  
Computer Science & Machine Learning  
Masters of Science

**Western Washington University**  
Computer Science & Cryptography  
Bachelor of Science, Math Minor