

# Philip Robinson

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UTC-8

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<https://github.com/probinso>

10+ years experience in software, machine learning & DevOps on interdisciplinary teams supporting work across natural sciences, computer securities, remote sensing & || citizen sciencery

## Skills/Experience

Machine Learning  
Data Sciences

Remote/Global Teams  
Technology Transfer

Linux Systems  
Education/Mentoring

MLOps/DevOps  
Rubber Ducking

## Technologies

Python/PyTorch/sklearn  
C/C++

Angular/Next.js/FastAPI  
GDAL/cartopy/SNAP

scipy.signal/librosa/sox  
AWS/GCP/firebase

SQL/BQL/PostGIS  
Docker

### Blue Oasis

#### - Digital Twin Engineer (Ocean Sciences)

May 2025 - Oct 2025

Improved edge ML acoustic multi-label event detection pipeline, for tracking vessels & marine life  
Full stack + security & performance on HydroTwin, a user focused acoustics analytics/IR dashboard  
Advised DL & surrogate model design on PHAROS & SmartFisher, for ecosystem monitoring & simulation

### Global Fishing Watch

#### - Scientific Programmer (Earth Imaging)

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 gwfsat to join & catalog millions of satellite scenes, serving global ocean surveys  
Developed simple offline satellite image labeler, supporting all shapely geometries by lat/lon  
Led technology transfer work, moving research prototypes to production & automated pipelines  
Developed collaboration strategies & best practices docs, for remote & international teams

### GrammaTech

#### - Deep Learning Engineer II (Security)

March 2020 - April 2022

Research on binaries in vulnerability detection & improving code legibility from decompilation  
Developed feature extraction pipeline over local cluster & 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's Jet Propulsion Lab - Data Science Intern (Natural Text)

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 Neuroimage Lab

#### - Graduate Research Assistant (Medical)

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

### OHSU MSc Research

#### - 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 (Security)

April 2014 - Dec 2015

Developed processing pipelines on local clusters for evaluator workflows with multiple SBIR/STTRs  
Setup brittle PPAML languages on 30+ participants' devices for two annual DARPA summer schools  
Co-authored secure internet voting feasibility study for non-technical, policy-focused audience

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

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