

# Philip Robinson

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UTC-8

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<https://github.com/probinso>

10+ years experience in software & machine learning 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++

skimage/scipy.signal  
GDAL/cartopy/ESA-SNAP

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

SQL/BQL/PostGIS  
Docker

## Blue Oasis - Digital Twin Engineer (Ocean Sciences) May 2025 - Oct 2025

Contributed to multi-label edge marine acoustics ML pipeline, to track vessels & marine life  
Full stack security & performance work on HydroTwin, a user focused 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 gfwsat 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 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'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 & workflows for evaluator work on multiple DARPA SBIR/STTR programs  
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

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

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