

# 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++

scipy.signal/skimage  
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**  
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 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 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

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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