Philip Robinson

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https://github.com/probinso

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

Skills/Experience

Machine Learning	Remote/Global Teams	Linux Systems	MLOps/DevOps
Data Sciences	Technology Transfer	Education/Mentoring	Rubber Ducking

Technologies

Python/PyTorch/sklearn	scipy.signal/skimage	Gtirb/Dwarf/asts.AST	SQL/BQL/PostGIS
C/C++	GDAL/cartopy/ESA−SNAP	AWS/GCP/firebase	Docker

Blue Oasis — **Digital Twin Engineer (Ocean Sciences)** **May 2025 – Oct 2025**
Improved edge ML pipeline for multi-label marine acoustics, to indentify/track 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 Propultion 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 for local clusters & evaluator workflows on multiple SBIR/STTRs
Setup brittle PPAML languages on 30+ participants' devices for two annual DARPA summer schools
Co-authored secure internet voting feasability study for non-technical, policy-focused audience

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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