

Philip Robinson

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<https://github.com/probinso>

I'm an experienced Software Engineer / Data Scientist with passion for interdisciplinary work in environmental, social good, & citizen science projects.

Skills/Experience

Machine Learning	Prototypes	Remote Work	Ticketing Systems
Data Science	Linux Systems	Education/Mentoring	Rubber Ducking

Technologies

Python/PyTorch/sklearn	R/dplyr	skimage/scipy.signal	Gtirb/Dwarf/asts.AST
C/C++	Angular/NativeScript	Docker	AWS/GCP/firebase

Global Fish Watch

- Scientific Programmer

May 2022 - present

Research developer on large scale studies for detection of unreported/illegal boating activity
Developed gfwsat, to organize satellite data from public providers for global ocean surveys
Developed inter-departmental collaboration strategies & code best practices for GFW teams

GrammaTech

- Machine Learning Researcher

March 2020 - April 2022

Performed DL/ML research for binary vulnerability detection & decompilation legibility tasks
Developed data pipeline to distribute feature extraction over networked virtual machines
Implemented & incorporated code from academic research publications into release products
Participated in authoring & reviewing SBIR/STTR proposals for DOD/DARPA solicitations

HappyWhale

- Mobile / Full Stack Engineer

March 2019 - March 2020

Developed Polar Collective, a x-platform citizen sciencery app to support ecology research
Developed core tools for tracking marine life sightings & individual whale identification
Contributed to data access API, supporting researchers in population ecology projects

NASA's Jet Propulsion Lab

- Graduate Data Science Intern

June 2018 - Sept 2018

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

DCAN Neuroimaging Lab

- Graduate Research Assistant

Oct 2017 - June 2018

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

Graduate Research CSLU/ACO - Machine Learning (Audio Data)

Sept 2017 - Dec 2019

Developed VAEs and anomaly detectors for marine acoustics from signal processing research
Developed ACOio track explorer, enabling research on 10 year (12 TB) continuous audio track
Measured effects of spectral subtraction & deep noise reduction techniques on ML models
Led & enabled a four week community data deep dive, through PDSG, on marine acoustics

RGB Optics LLC

- Volunteer Developer & Consultant

Nov 2015 - present

Developed remote sensing tools to classify citiscap light sources for light pollution study
Image processing consult on low cost blood tests for infant hypoxic ischemic encephalopathy
Provided technology trainings/consultation on code optimization, NLP, & image processing

Galois Inc.

- R&D Software Engineer

April 2014 - Dec 2015

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

Oregon Health Science University

Computer Science & Machine Learning
Masters of Science

Western Washington University

Computer Science & Cryptography
Bachelor of Science, Math Minor