# Philip Robinson

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UTC–8

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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 |

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**Global Fish Watch** — **Scientific Programmer** **May 2022 – present**
- Developed inter-departmental collaboration strategies & code best practices for GFW teams
- Developed tools to organize satellite data from public providers for global ocean surveys

**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 citiscape 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
- Produced biannual quantitative & qualitative reports for DARPA & participating PPAML teams

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### Oregon Health Science University
**Computer Science & Machine Learning**
Masters of Science
2016 – 2019

### Western Washington University
**Computer Science & Cryptography**
Bachelor of Science, Math Minor
2007 – 2012