# Philip Robinson

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**https://github.com/probinso**


## Personal Statement

I love to make hard problems into impactful software solutions and actionable or educational materials. I am an adaptable engineer, whose work history spans products and research in machine learning, science, software engineering, and security.

**Skills/Experience :**

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|---|---|---|---|
| Python | C, C++ | Merry-go-rounds | TDD |
| R, dplyr | LaTeX | Git | Ticketing Systems |

## Work Experience

**Graduate Research OHSU/ACO** **– Deep Learning in Marine Acoustics** **(continuing)**

- Designed/Led project and managed communication in a remote environment without oversight
- Researched deep learning models to study/index bioacoustic events from a 10 year audio track
- Measured effects of adaptive spectral subtraction, for audio denoising, on models' accuracy
- Developed an intuitive ACO track explorer, to help rejuvenate data access for researchers
- Developed assignments, as TA for Deep Learning course, in using VAEs for anomaly detection

**Technologies : ACOio, Keras, tensorflow, PyTorch, scipy.signal, Jupyter, flask, Angular**

**HappyWhale** **– Staff Software Engineer** **March 2019 – present**

- Contributed as full stack developer on a small team, in both remote and onsite environments
- Developed Polar Collective App, a cross platform tool to manage citizen-science projects
- Maintained and contributed to user tools for individual whale identification and tracking

**Technologies : NativeScript, Angular, node.js, Android, iOS, PostgreSQL, Java, Spring**

**NASA Jet Propulsion Lab** **– Graduate Data Science Intern** **June 2018 – Sept. 2018**

- Designed & developed Expert Modeling/Recommender System to rank-match engineers to tasks
- Fully specified programmatic solutions from use-case meetings with top NASA/JPL employees
- Open Source contributions to the gensim natural language processing library

**Technologies : Python, nltk, gensim, pyLDAvis, pandas, Jupyter, Author-Topic-Model, LDA**

**OHSU Fair Neuroimaging Lab** **– Research Assistant** **Oct. 2017 – June 2018**

- Contributed to microbiome population analytics tools to study female reproductive system
- Developed processing pipeline and audit tools for reported and FMRI data, on AHDH/ASD studies
- Acted as Open Source and Securities lead, developing trainings and enforcing best practices

**Technologies : Python, Bash, R, neo4j, ponyorm, stan, GitLab, Docker**

**RGB Optics (Part Time)** **– Remote Contractor/Consultant** **Nov. 2015 – Aug. 2018**

- Developed custom photo image processing tools and pipelines for low cost spectral analysis
- Authored educational material in light pollution's effect on economy, biology, and technology
- Developed natural language processing tools to organize and explore Myeloma clinical trials
- Provided technology tutorials and consulting on code optimization, NLP, and image processing

**Technologies : Python, skimage, sklearn, AWS, spark, CliNER, Morphological Watersheds**

**Galois Inc.** **– R&D Software Engineer** **April 2014 – Dec 2015**

- Developed processing pipelines and workflows to enable evaluator work for DARPA programs
- Produced biannual quantitative and qualitative reports on for DARPA and language developers
- Contributed to PPAML, Overseas Voting Foundation, Safeware, Robot Fast Track

**Technologies : Python, SLURM, Scala, Figaro, Chimpy, Docker, Jira, Basecamp**

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**Oregon Health Science University** **Machine Learning**

Computer Science MSc
2016 – present

**Western Washington University** **Computer Science & Cryptography**

Computer Science BS, Mathematics Minor
June 2012