Philip Robinson

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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 :

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

Work Experience

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

- Designed/Led project and managed communication in a remote environment without supervision
- Researched deep anomaly detectors, to index bioacoustic events from a 10 year audio track
- Measured effects of adaptive spectral subtraction, for audio denoising, on model accuracy
- Developed an intuitive ACO track explorer, to help rejuvenate data access for researchers
- Identified and implemented advanced/specific machine learning models from research papers

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