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 **– Deep Learning in Marine Acoustics** **(continuing)**

Designed, developed, and managed research work 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
Taught & developed materials 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 expert staff 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