

Philip Robinson

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<https://github.com/probinso>

Personal Statement

I'm an experienced Software Engineer / Data Scientist interested in interdisciplinary work in environmental, social good, citizen science, & computer security projects.

Skills/Experience

Research MVPs	Linux Systems	Education/Mentoring	Ticketing Systems
ML/Data Sciences	Remote Work	Communication	Rubber Ducking

GrammaTech - R&T Machine Learning Engineer March 2020 - present

Transferred NLP research to decompilation in binaries & reverse engineering applications
Performed research & evaluated ML work on compiled binaries in vulnerability detection
Developed distributed feature extraction & ML training pipelines supporting DARPA programs
Participated in authoring and reviewing grant proposals for DOD and DARPA solisitations

Technologies : Python, C, PyTorch, RetDec, asts.AST, GTIRB, Docker, celery, GitLab.ci

HappyWhale - Mobile / Full Stack Developer March 2019 - March 2020

Developed Polar Collective App, a x-platform phone app supporting citizen science projects
Core developer for user tools in logging whale sightings for identification & tracking
Developed data & access API supporting researchers in population ecology projects

Technologies : Native/TypeScript, Angular, Android/iOS, PostgreSQL, Java, Spring, firebase

NASA Jet Propulsion Lab - Data Science Intern June 2018 - Sept 2018

Developed employee Expertise Recommender System, automating expensive critical tasks
Designed & completed prototype from research papers & advisement of top NASA/JPL employees
Presented & defended NLP/ML prototype to non-computational decision makers at JPL

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

OHSU DCAN Neuroimaging Lab - Graduate Research Assistant Oct 2017 - June 2018

Contributed to microbiome population analytics, studying menopause & reproductive health
Developed processing pipeline & audit tools for survey & fMRI data, on ADHD/ASD studies
Provided git, Project management, & security trainings for various tech readiness levels

Technologies : Python, Bash, R, dplyr, phyloseq, neo4j, ponyorm, stan, GitLab, Docker

Graduate Research CSLU/ACO - Machine Learning (Audio Data) Sept 2017 - Dec 2019

Implemented & transferred deep anomaly detectors from research papers to marine acoustics
Measured effects of spectral subtraction & deep noise reduction techniques on ML models
Developed ACOio track explorer, enabling research on (10 yr/12 TB) continuous audio track

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

RGB Optics (Part Time) - Volunteer Developer & Consultant Nov 2015 - present

Developed remote sensing tools for low cost spectral analysis, in light pollution surveys
Authored training material on effects of light pollution on economy, biology, & technology
Research consult on statistics and image processing for low cost blood testing technologies
Developed natural language processing tools to organize & explore Myeloma clinical trials
Provide technology tutorials/consultation on code optimization, NLP, & image processing

Technologies : Python, skimage, sklearn, AWS, CLiNER, Morphological Watersheds, OpenCV

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
Produced biannual quantitative & qualitative reports for DARPA & other PPAML teams

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

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