Philip Robinson

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https://github.com/probinso

Personal Statement

I'm an experienced Software Engineer / Data Scientist excited about interdisciplinary work benefiting environmental, social good, & citizen science 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 binaries in decompilation/reverse engineering applications
- Performed research & evaluated ML work on compiled binaries in vulnerability detection
- Developed feature extraction & ML training pipelines supporting DARPA programs
- Completed technology transfer of university research work to release products

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, x-platform phone app supporting citizen science projects
- Core developer for web user tools in sighted whale logging, identification, & tracking
- Developed data & access points 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 AHDH/ASD studies
- Provided git, Project management, & and security trainings for various 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 anomaly detectors from research papers to marine bio-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/Mentor**   **Nov 2015 – present**
- Developed image processing tools for low cost spectral analysis, to study light pollution
- Authored training material on effects of light pollution on economy, biology, & technology
- Consultant on statistics, image processing, and optimizations for low cost medical tests
- 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

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Oregon Health Science University	**Western Washington University**
Computer Science & Machine Learning	**Computer Science & Cryptography**
Masters of Science	Bachelor of Science, Math Minor
2016 – 2019	2007 – 2012