Philip Robinson

Portland, OR
UTC-8

probinso+res@protonmail.com
(+1) 206.377.9747

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**

- Conducted NLP research in binary decompilation for reverse engineering applications
- Performed research & evaluated ML work on compiled binaries for vulnerability detection
- Participated in authoring & reviewing SBIR/STTR proposals for DOD/DARPA solicitations

Technologies : **Python, C, PyTorch, RetDec, asts.AST, GTIRB, Dwarf, Docker, celery, DIRTY**

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
- Contributed to 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 expert recommender system, eliminating weeks in ticket triage/assignment
- Designed & completed MVP 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 teams with varying backgrounds

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

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

- Developed deep anomaly detectors from signal processing research papers for 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
- Led & enabled a four week community data deep dive series through PDSG on marine acoustics

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
- Image processing consult on low cost infant hypoxic ischemic encephalopathy (iHIE) tests
- Developed natural language processing tools to organize & explore Myeloma clinical trials
- Provided technology trainings/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
- Authored material on disenfranchisement under Free & Fair for the Overseas Voting Foundation
- Produced biannual quantitative & qualitative reports for DARPA & participating 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