Philip ███████████   ████████████   ████████+res@protonmail.com
UTC−8   (+1) ███.███.███

https://github.com/███████

I'm an experienced Software Engineer / Data Scientist with passion for interdisciplinary, environmental, scientific, privacy, OSInt & citizen science projects.

Skills/Experience

Machine Learning	Prototypes	Remote Work	Ticketing Systems
Data Science	Linux Systems	Education/Mentoring	Rubber Ducking

Technologies

Python/PyTorch/sklearn	R/dplyr	skimage/scipy.signal	Gtirb/Dwarf/asts.AST
C/C++	Angular/NativeScript	Docker	AWS/GCP/firebase

████████████ – **Scientific Programmer (Research)**   **May 2022 – April 2025**

Remote sensing, using CFAR detector to match ships from SAR satellite images to AIS/VMS data
Developed gfwsat to join & catalog millions of satellite scenes, serving global ocean surveys
Developed custom labeler for very large SAR images, to make training data for object detection
Led technology transfer work, moving research prototypes to automated pipelines & production
Developed a light ORM/utils library to enforce best practices & documentaiton in cloud/IO
Ran audits on research projects to address security, documentation, & repo cleanliness issues

█████████ – **Machine Learning Researcher II**   **March 2020 – April 2022**

Research on binaries in vulnerability detection & improving code legability from decompilation
Developed feature extraction pipeline over cloud hosted virtual machines on TBs of data
Implemented, verified & incorporated ML/DL code from academic research into release products
Participated in authoring & reviewing SBIR/STTR proposals for DOD/DARPA funding solicitations

█████████ – **Mobile & Full Stack Engineer**   **March 2019 – March 2020**

Developed Polar Collective, x-platform citizen sciencery app to promote eco-tourism & research
Developed core tools for tracking marine life sightings & individual whale identification
Contributed to data access API & web UI, supporting researchers in population ecology studies

██████████████ – **Data Science Intern (NLP)**   **June 2018 – Sept 2018**

Prototyped employee expert recommender system, to eliminate weeks in ticket triage/assignment
Designed & completed prototype from research papers & advisement of top NASA/JPL employees

███████████ – **Graduate Research Assistant**   **Oct 2017 – June 2018**

Analyzed relationship of adjacent microbiome populations for menopause & reproductive health
Developed processing/audit tools for survey & fMRI data to support ABCD study for ADHD/ASD
Provided git, project management & security trainings for teams with varying readiness levels

Graduate Research ██████ – **Machine Learning (Audio Data)**   **Sept 2017 – Dec 2019**

Developed VAEs & anomaly detectors for applied marine acoustics in very noisy environments
Developed a track explorer to enable research on 10 year (12 TB) continuous audio from ACO
Measured effects of spectral subtraction & DL models to reduce noise & improve audio quality

██████████ – **Volunteer Developer & Consultant**   **Nov 2015 – present**

Developed remote sensing tools to classify light technologies in photos for skyglow studies
Consult on image processing for low cost diagnosis of infant hypoxic ischemic encephalopathy
Provided technology training/consult on code optimization, medical NLP & image processing

█████████ – **R&D Software Engineer**   **April 2014 – Dec 2015**

Developed processing pipelines & workflows for evaluator work on multiple DARPA SBIR programs
Helped run professional trainings to disseminate new probabilistic programming languages
Wrote on disenfranchisement under Free & Fair for secure internet voting feasibility study

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██████████████████████ **University**
Computer Science & Machine Learning
Masters of Science

██████████████████ **University**
Computer Science & Cryptography
Bachelor of Science, Math Minor