Christopher J. Warner II, PhD

linkedin.com/in/chris-warner-II

cwarner@berkeley.edu

chris-warner-ii.github.io

Summary

Computational neuroscientist and biophysicist with a passion for data science and machine learning. With a decade of expertise in the field, I enjoy systems level thinking and excel where technical ability and creativity intersect to bring various inputs together into algorithm solutions.

Skills

Expertise: Building machine learning algorithms (neural networks, regression, classification, clustering), dynamical systems modelling, Graph Theory, Bayesian inference, visual neuroscience and image processing, time-series analysis

Technology: Python, MATLAB, Labview, Mathematica, R, C++, Git, Docker, AWS, [Pytorch, Scikit-learn, Pandas, ...]

Experience

CODA Biotherapeutics — Jul 2021 - Mar 2022

***Machine Learning Engineer**, Consultant*

- Delivered full ML algorithm to predict interactions between proteins and drugs including NLP implementation
- Interfaced with biologists to guide protein synthesis; incorporating their feedback to guide model development
- Transitioned project into production by leveraging cloud computing, containerization and process engineering

University of California, Berkeley — Sep 2011 - Sep 2019

***Redwood Center for Theoretical Neuroscience**, PhD Candidate*

- Pioneered retina-like image segmentation algorithm based on network modularity and anisotropic diffusion
- Built Bayesian latent variable model to infer unobserved cell assembly structure in spiking neural data
- Mentored undergrad students, guiding them in projects analyzing real world social network and global trade data

MIT, Lincoln Laboratory — Sep 2005 - Feb 2009

***Advanced RF Techniques & Systems Group**, Electrical Engineer*

- Spearheaded radar program through hardware dev, software integration, testing, data collection, analysis and results
- Created statistical analysis pipeline to detect and classify moving targets under foliage using radar signature
- Tested, fielded, maintained and documented electronic moving target simulator units for radar system calibration

Education

University of California, Berkeley — **Berkeley, CA**
Ph.D., Biophysics and Computational Neuroscience — *Sep 2011 – Sep 2019*

Ohio State University — **Columbus, OH**
B.S., Physics — *Sep 2001 – Jul 2005*

Selected Publications

Warner, C., Ruda, K., Sommer, F.: *Probabilistic latent variable model to detect structure in binary data.* (2022) arXiv:2201.11108

Warner, C., Sommer, F.: *A Model for Image Segmentation in Retina.* (2020) arXiv:2005.02567

Extras

- Musician, producer & sound engineer: self-produced an album of original songs I wrote, performed and recorded
- Self-led, creative, technical: stealth startup exploring computational poetry and lyric analysis in phoneme space
- Passionate about mindfulness, meditation & psychology: a growth mindset, geared towards embracing challenge