

EDUCATION

University of Washington

Ph.D. Candidate, Computer Science & Engineering 2017-2023
Research topics: machine learning for health and computational biology (anticipated)

M.S. Computer Science & Engineering 2019

Harvard University

B.A. Computer Science (Statistics minor) 2017
Mind, Brain, and Behavior Honors Track; *cum laude* in field

EXPERIENCE

AIMS Lab (University of Washington)

Graduate Research Assistant (advised by Su-In Lee) 2017-2023 (ongoing)
Leading and collaborating on research projects in **deep learning for systems biology**, and **machine learning for health**, including applications in Alzheimer's disease and health risk prediction.

Google

Research Intern Fall, 2022 (ongoing)
Working in the Google Cloud AI Research team on machine learning methods for irregularly sampled time series data with applications in healthcare.

Recursion Pharmaceuticals

Data Science Intern Fall, 2021
Integrated high-throughput gene expression datasets with machine learning methods, and built deep learning architectures to unite them with Recursion's imaging-based assays.

Facebook

Machine Learning Software Engineer Intern Summer, 2020
Developed data processing SQL pipelines and machine learning models to identify networks of users sharing dangerous content on the Facebook platform.

Eddy Lab (Harvard University)

Undergraduate Research Fellow 2016 - 2017
Employed deep learning pipelines to process large, next-generation sequencing data on Harvard's high-performance computing cluster. *Undergraduate honors thesis:* "Towards Learning Regulatory Elements of Promoter Sequences with Deep Learning"

Center for Sleep and Cognition (Beth Israel Deaconess Medical Center)

Undergraduate Research Fellow 2015 - 2016
Led a study to collect and analyze polysomnography and EEG datasets to investigate the relationship between dysfunctional sleep architecture and abnormal neural responses to stimuli.

Neuropsychomaging of Addiction Group

Undergraduate Research Fellow (Icahn School of Medicine at Mount Sinai) Summer, 2014
Research Assistant (Brookhaven National Laboratory) 2011 - 2013
Data analysis with genetic, fMRI, and longitudinal behavioral datasets to identify relationships and predictors of relapse in cocaine-addicted individuals, resulting in 4 co-authored journal publications.

SELECTED PUBLICATIONS

Nicasia Beebe-Wang, Ayse B. Dincer, Su-In Lee. "An automatic integrative method for learning interpretable communities of biological pathways." *NAR Genomics and Bioinformatics*, 2022

Ethan Weinberger, **Nicasia Beebe-Wang**, Su-In Lee. "Moment matching deep contrastive latent variable models." *25th International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2022.

Nicasia Beebe-Wang, Safiye Celik, Ethan Weinberger, Pascal Sturmfels, Philip De Jager, Sara Mostafavi S**, and Su-In Lee**. "Unified AI framework to uncover deep interrelationships between gene expression and Alzheimer's disease neuropathologies." *Nature Communications*, 2021.

- Selected for highlight talk at *RECOMB*, 2022
- Spotlight talk presented at *ICML Workshop on Computational Biology*, 2019 (Travel Award)

Nicasia Beebe-Wang*, Alex Okeson*, Tim Althoff**, and Su-In Lee**. "Efficient and Explainable Risk Assessments for Imminent Dementia in an Aging Cohort Study." *IEEE Journal of Biomedical and Health Informatics*, 2021.

Scott Moeller, **Nicasia Beebe-Wang**, Kristin Schneider, Anna Konova, Muhammad Parvaz, Nelly Alia-Klein, Yasmin Hurd, and Rita Z. Goldstein. "Effects of an opioid (proenkephalin) polymorphism on neural response to errors in health and cocaine use disorder." *Behavioural Brain Research*, 2015.

Scott Moeller, **Nicasia Beebe-Wang**, Patricia Woicik, Anna Konova, Thomas Maloney, and Rita Z. Goldstein. "Choice to view cocaine images predicts concurrent and prospective drug use in cocaine addiction." *Drug and Alcohol Dependence*, 2013.

*co-first authors, **co-corresponding authors

SELECTED AWARDS

Microsoft Research PhD Fellowship Departmental Nomination	2019
CRA-W Grad Cohort Workshop Participant	2018
Jeff Dean - Heidi Hopper Endowed Regental Fellowship in Computer Science & Engineering	2017

TEACHING & MENTORSHIP

Computational Biology (Teaching Assistant)	Winter, 2020
Machine Learning for Big Data (Teaching Assistant)	Spring, 2019
Undergraduate research mentor (providing guidance to a student in the AIMS lab)	2022-Present

SERVICE & LEADERSHIP

Conference Reviewing

- Machine Learning in Computational and Systems Biology track at *ISMB*, 2020
- Neural Information Processing Systems (*NeurIPS*), 2021 and 2022

UW CSE Departmental Service

- **Grad, VGrad, & Postdoc Advisory Council** (Met with school leadership about policies & issues related to graduate students, and postdoctoral researchers) 2019 - 2021
- **Women's Events Coordinator** 2019-2021
- **New Graduate Student Orientation Co-Leader** Fall, 2018
- **UW CSE Peer Mentor** (helping new PhD students adjust to graduate school) 2017-2022