Eugene Han

eugenehan.github.io

PROFESSIONAL EXPERIENCE

Sandia National Laboratories, Albuquerque, NM | Remote
Intern Year Round - R&D Grad Aug 2022 - Sep 2023
- Developed anomaly detection methods for acoustic signals and images in Python (TensorFlow)
- Improved the predictive capability of the failure forecasting models for lithium-ion batteries

Math & Analytics Graduate Intern May 2022 - Aug 2022
- Constructed failure forecasting models in R using Isolation Forests for lithium-ion batteries and published an internal manuscript for future reference

Locus Analytics, New York, NY Jun 2018 - Aug 2018
Data Analytics Intern
- Developed classification models in Python to classify job postings to the firm's proprietary classification system
- Analyzed economic complexity of geographically proximate communities using clustering algorithms in Python

Opticlose, New York, NY Sep 2014 - Aug 2015
Data Science Intern
- Built models in R to predict the success of sales closure given tabular sales data

EDUCATION

University of Illinois at Urbana-Champaign, Urbana-Champaign, IL
Ph.D. Statistics Aug 2021 - May 2026
Research Interests: Personalized Medicine, Reinforcement Learning, Single-cell Analysis

M.S. Statistics Aug 2019 - May 2021

Carnegie Mellon University, Pittsburgh, PA
B.S. Mathematical Sciences with MCS College Honors Aug 2015 - May 2019
Additional Major in Statistics, Minor in Computer Science

PUBLICATIONS & PRESENTATIONS

[1] Y. Li, **E. Han** et al., Policy Learning with Continuous Actions Under Unmeasured Confounding. **Submitted October 2024**.

[2] K. Walters, C. Blatti, R. Zhu, B. Banbury, L. Giurgea, R. Bean, **E. Han** et al., Nasomucosal and systemic viral shedding-correlated responses following influenza A/H1N1 challenge in people with complex preexisting immunity. **Submitted August 2024 (in revision)**.

[3] Y. Hu, Y. Li, **E. Han** et al., In Search of the Holy Grail of Relationship Success: Using Machine Learning Methods to Understand Adaptive Relationship Strategies. *International Association for Relationship Research* (IARR), 2024. **Oral Presentation**.

[4] **E. Han** and R. Zhu, Modeling and Visualizing Compositional Data with the Fisher-Bingham Distribution. *Joint Statistical Meetings* (JSM), 2023. **Oral Presentation**.

[5] **E. Han** and D. Offner, Linear d-polychromatic Q_{d-1}-colorings of the Hypercube, *Graphs and Combinatorics*, 34 (2018) 791-801.

PROGRAMMING SKILLS

Proficient: Python (PyTorch, TensorFlow, scikit-learn), R, Git
Experienced: SQL, C, Java