Pierce Hoenigman

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EDUCATION

The University of Chicago

Chicago, IL

Bachelor of Science in Biological Sciences, specialization in Quantitative Biology Minors in Computer Science & Systems Bioengineering (GPA: 3.99/4.00)

September 2021 – June 2025

HONORS & AWARDS

Biological Sciences Research Honors

June 2024

Awarded \$5000 to conduct Honors Thesis research "Learning Latent Design Spaces in Protein Generative Models" in the Ranganathan lab and partake in Research Honors programming and presentation training

DAAD RISE February 2023

Awarded €3429 by the German Academic Exchange Service to research mitochondrial membrane protein biogenesis in the Herrmann Lab at RPTU Kaiserslautern-Landau and partake in the RISE conference in Heidelberg May 2025

Summa cum laude

Phi Beta Kappa, 2023-2024, 2024-2025 August 2024, May 2025 August 2024, May 2025

Janet Rowley Scholar of the Biological Sciences, 2023-2024, 2024-2025 Robert Maynard Hutchins Scholar, 2022-2023

August 2023

Dean's List 2021-2022, 2022-2023, 2023-2024

August 2022, August 2023, August 2024

EXPERIENCE & ACTIVITIES

Ranganathan Lab

Chicago, IL

Undergraduate Researcher (at the University of Chicago)

October 2023 - Present

- Iteratively engineer and optimize more interpretable deep generative models (primarily variational autoencoders) using PyTorch to improve functional control over the design of novel proteins
- Apply Bayesian statistics and information theory to design disentanglement methods for learned representations
- Design toy models to understand the effects of phylogenetic noise on protein statistical inference

Quantitative Biosciences Center

Chicago, IL

Head Teaching Assistant (at the University of Chicago)

January 2023 – December 2024

- Design and administer bioinformatics labs in R and Python for six courses using quantitative and statistical skills
- Give lectures on programming fundamentals and help hundreds of students with coding and statistics questions

Department of Computer Science

Chicago, IL

Grader for Mathematical Foundations of Machine Learning (at the University of Chicago)

September 2024 December 2024

Assess and answer questions for over 200 students on mathematical theory underlying machine learning methods

Chicago Biomedical Consortium

Chicago, IL

Entrepreneurship Intern

July 2024 – September 2024

- Conduct market research and scientific literature review into biotech startups spun out from Chicagoland universities to narrow down pre-seed grant candidates
- Construct Excel database containing comprehensive information on 500+ Chicagoland biotech companies

Herrmann Lab Research Intern (at Rheinland-Pfälzische Technische Universität Kaiserslautern-Landau) Kaiserslautern, Germany

July 2023 – September 2023

- Innovated new methods for protein proximity labeling to elucidate the connection between mitochondrial and peroxisomal protein biogenesis pathways
- Proofread and edited manuscripts now published in Cell Reports for grammar, flow, and clarity

Genehackers

Chicago, IL

Finance Director

October 2022 - Present

- Successfully secure \$40,000 annually through corporate sponsorships and grant writing and manage student-led synthetic biology research to develop a schistosomiasis vaccine candidate now under animal testing at the NIH
- Organized six guest speaker and networking events with scientific leaders and entrepreneurs in biotech and pharma

Computer: Experienced with Python/PyTorch, R/Tidyverse, C, Bash, Git, Excel/MS Office Suite, PitchBook