

EDUCATION

Harvard Medical School Boston, MA	Expected Dec 2024
MS in Biomedical Informatics GPA: 4.0	
<ul style="list-style-type: none">Ongoing Capstone: Predicting Future Depressive Biotypes from rs-fMRI with Dynamic Causal ModelingRelevant Coursework: ML for Computational Biology (MIT), Computational Biomedical Statistics, Computational Psychiatry (ETH Zurich)Activities: Harvard Biotech Club, Harvard Innovation Labs, Harvard Graduate Consulting Club, Camp Kesem	
Northwestern University Evanston, IL	Jun 2023
BA in Computational & Systems Biology, Data Science, and Linguistics GPA: 3.93 (Dean's List 8/9)	
<ul style="list-style-type: none">Honors Program in Medical Education (HPME): 7-year BA/MD programRelevant Coursework: RNA Sequencing, Functional Genomics, Bioinformatics, Biostatistics, Text Processing	

SKILLS

Languages: Python, R, SQL, Linux, C, MATLAB, HTML, JavaScript
Technologies: PyTorch, TensorFlow, Git, LLM, NLP, PCA, HPC, API
Additional Skills: Spanish (Intermediate), Arabic (Intermediate)

PROFESSIONAL EXPERIENCE

Data Scientist <i>Behavior</i> Pittsburgh, PA	Sep 2023 – Present
<ul style="list-style-type: none">Implement predictive supervised and unsupervised ML models on 200k biometric datasets to predict cravingsDevelop label propagation algorithms for refined, improved scikit-learn clustering (15% gain in model precision)Improve Cypher algorithm efficiency for accelerated real-time anomaly detection in patient wearable devices	
Associate Consultant <i>H2Ok Innovations</i> Boston, MA	Sep 2023 – Present
<ul style="list-style-type: none">Scale application of artificial IoT-enabled industrial liquid optimization across top-tier Fortune 500 enterprises<i>Project manager:</i> conduct strategic market and industry sensitivity analyses targeting a \$14 billion market entryEnhance revenue generation by 25% through tailored, client-specific pricing models from competitive analyses	
Strategy Consultant <i>Mercurial-AI</i> Chicago, IL	Mar 2023 – Aug 2023
<ul style="list-style-type: none">Developed and implemented strategic operational changes that successfully secured \$500k in seed capital<i>Project manager:</i> overlooked deep ensemble/casual framework personalizing breast cancer treatments	

RESEARCH EXPERIENCE

ML Researcher <i>Center for Precision Psychiatry, Mass General Hospital</i> Boston, MA	Oct 2023 – Present
<ul style="list-style-type: none">Leverage regression models of UK BioBank GWAS to define the neuroanatomical underpinnings of depressionIdentify and validate brain-based depression biotypes through clustering of 4,000 fMRI neuroimaging featuresDesign novel methodologies to preserve neuronal spatial information from imaging data using 3D deep learning	
Molecular Biology Researcher <i>Vaughan Lab, Feinberg School of Medicine</i> Chicago, IL	Mar 2021 – Jun 2023
<ul style="list-style-type: none">Probed the RNA-binding protein SERBP1 to combat PAI-1 induced fibrosis, senescence, aging, and Alzheimer'sDeveloped a novel, transgenerational epigenetic method of prion-mediated PAI-1 destabilization via CRISPR	
NLP Researcher <i>Behavioral Research Lab, Yale University</i> New Haven, CT	Mar 2022 – Jul 2022
<ul style="list-style-type: none">Collaborated with an inter-institutional team investigating negotiation strategies between buyersProbed over 6,000 minutes of negotiation data and discerned optimal linguistic behaviors using Python	

PUBLICATIONS & PROJECTS

<ul style="list-style-type: none">Exploiting ML Conformational Ensembles for Optimized Pharmacophore Drug-Ligand Dynamics (MIT CSAIL)NLP Techniques for Predictive Classification of Large-Scale Medical AbstractsMulti-model Regression Machine Learning Analysis: Predicting Cancer Mortality Rates in US Counties<i>Language of Bargaining</i><i>SERBP1: Exploiting RNA-Binding Protein-Mediated PAI-1 Inhibition</i><i>PTENP1: A Pivotal Pseudogene in Glioblastomas</i>
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AWARDS

Top 20 in Penn Healthcare Case Competition	HPME (2021) and Weinberg (2022) Summer Research Grants
Selected Venture @ Harvard Innovation Lab	Regeneron Science Talent Search Scholar
2 nd Place – Biochemistry, BCA Research Exposition	Thermo Fisher Scientific Antibody Scholarship (\$5,000)