

EDUCATION

University of California, Berkeley	B.A. in Computer Science
Warren Y. Dere Design Award: Departmental Award for Outstanding Engineering Design	Aug. 2022 – May 2026

INDUSTRY EXPERIENCE

Phare Bio	Boston, MA
Machine Learning Intern - Skills: Python, PyTorch, Small Molecule Design	September 2025 – May 2026
◦ CARB-X-Selected Antibiotic Analog Design: Contributed to computational analog design for a small-molecule antibiotic program selected for CARB-X support, using REINVENT4 for generative design and Chemprop for property prediction to prioritize candidate analogs based on predicted activity and developability-relevant properties. ◦ Benchmarking Platform for Molecular Generation: Designing and deploying a scalable benchmarking platform on an HPC environment to evaluate molecular generative models—including JT-VAE, Transformer-based, and diffusion models across large-scale runs (100k+ generated molecules)	
Google	Mountain View, CA
Software Engineering Intern - Skills: C++, Experimentation, System Design	May 2025 - August 2025
◦ Gemini Voice API: Contributed to a 20% project exploring conversational recall for dementia patients using the Gemini Voice API. Implemented dialogue flows and evaluated engagement to assess the feasibility of AI-driven patient support. ◦ Ad Format Design and Implementation: On YT Shorts Ads team to design & analyze results of new content and component placement for Shorts App Ads. Front-end implementation in EML, server-side changes in C++. Utilized Google’s internal experimentation platform to conduct gradual rollouts and A/B tests, optimizing ad performance and user engagement.	
Amazon	Sunnyvale, CA
Software Development Engineering Intern - Skills: Java, System Design, AWS, Testing	May 2024
◦ Integration & Load Testing: Created Integration and Load Testing CI/CD frameworks for new FireTV Ad Stack plugins. Used Java to write tests on temporary Lambda compute to validate packages being added to version set. Programmed system monitoring tool in Java to obtain CPU, memory, and latency metrics during plugin integration testing across FireTV ad stack.	

RESEARCH EXPERIENCE

Innovative Genomics Institute	Berkeley, CA
Student Researcher: Ronda Lab - Skills: Protein Engineering, AlphaFold	Oct 2024 – Present
◦ Computational Miniaturization of SpyCas9: Applying SCISOR, an ML-guided computational framework, to generate compact deletion variants of SpyCas9 targeting 10–40% size reduction for improved packaging. Using AlphaFold for structural validation of candidate variants and wet lab assays to screen for retained nuclease activity.	

SELECTED PROJECTS

Curie	2026
Creator and Lead Developer Python, FastAPI, TypeScript, React, PostgreSQL, Scientific ML	
◦ AI-Native Scientific Workspace: Created and deployed a full-stack platform that integrates computational models, molecular data, scientific literature, and interactive tools for molecular design, property analysis, retrosynthesis, clustering, and scientific decision-making. ◦ Scientist-Facing Model Applications: Built Python and FastAPI pipelines with React interfaces that make model outputs interpretable and actionable for scientists; iterated on features using feedback from researchers and medicinal chemists. Live demo: curie-chem.org (access code: marie).	
Contrastive Alignment of Expression and Copy Number Reveals Dosage-Insensitive Genes in Cancer	
Accepted to ICLR 2026 MLGenX Workshop PyTorch, Scanpy, infercnvpy	
◦ Contrastive Learning for CNV–Expression Concordance: Built a contrastive learning framework aligning scRNA-seq expression and inferred CNV profiles in a shared latent space to identify dosage-insensitive genes in cancer, achieving 87%+ bidirectional top-1 retrieval accuracy on held-out cells.	
Fine-Tuning Genomic Language Models for Variant Pathogenicity Prediction	
Nucleotide Transformer, Caduceus, ClinVar, PyTorch	
◦ Variant Scoring and Evaluation: Built ClinVar missense-variant scoring pipeline comparing Nucleotide Transformer & Caduceus; found LoRA achieved 0.886 validation AUC with only 0.76% trainable parameters.	