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WORK EXPERIENCE

Genesis Molecular AI

06/2020 – Present

Staff ML Research Engineer | 07/2024 – Present

San Diego, CA

- Productionized the **molecular-design experience** for a new agentic drug-discovery platform, connecting molecule editing, generation, and filtering into responsive workflows for chemists; updated agent prompts.
- Improved **multitask ADME prediction models**, reducing aggregate prediction error by **16%** across nine endpoints on an external benchmark versus the production-model baseline.
- Owned data-pipeline and model updates for **water-aware Pearl**, a protein–ligand cofolding model, including loss-function changes and performance optimization; enabled flagship training with water placement and improved the main success metric from **59.2% to 62.7%** across six datasets.
- Investigated training failures in a **cross-functional ML reliability effort**, categorizing crashes and testing fixes with infrastructure engineers; reduced manual job intervention and maintained health checks across **~300 GPUs**.

Senior ML Research Engineer | 04/2023 – 07/2024

- Owned development, benchmarking, and deployment of a **conditional molecular generation model**; established evaluation benchmarks, ran model-scaling experiments and integrated the model into chemist-facing design workflows.
- Extended **diffusion-based molecular docking** through training experiments, data-pipeline improvements, and support for multiple conformers and validation datasets.

ML Research Engineer | 06/2020 – 04/2023

- Built a **React-based experiment-management dashboard** used daily by ML engineers and researchers, with job controls, progress indicators, and live/saved logs; optimized PostgreSQL queries to load large job histories **an order of magnitude faster**.
- As the **second engineering hire**, designed and built a chemist-facing molecular-design platform from the ground up, incorporating ~100 synthesis reactions; subsequently used by ~20 scientists for 1,000+ virtual screens, with **700+ generated compounds** experimentally tested across eight drug programs.
- Developed **GNN models** and molecular-data pipelines for potency and ADME prediction, integrating public data to support internal and partner drug-discovery programs.
- Helped scale the engineering team through **300+ candidate interviews**, resume reviews, and recruiter collaboration, contributing to 10+ engineering hires.

Cambridge Mobile Telematics

06/2019 – 12/2019

Software Engineering Intern (Vision Group)

Cambridge, MA

- Developed a deep learning model for monocular 3D object detection and tracking using dashcam videos integrated with phone sensor data to analyze drivers' risk behaviors.
- Reported the research in M.Eng. thesis, as a part of MIT 6A Program.

Jane Street

06/2018 – 08/2018

Software Development Intern

New York, NY

- Increased speed of the internal version-control/code-review tool by minimizing high-overhead calls.
- Implemented a testbed to measure latency of trading algorithms by simulating trade orders.

EDUCATION

Massachusetts Institute of Technology

05/2020

Master of Engineering, Electrical Engineering and Computer Science, GPA: 5.0/5.0

Cambridge, MA

- Concentration in Artificial Intelligence.
- TA for Mobile and Sensor Computing (Spring 2019, Spring 2020). Graded and updated problem sets written in **Swift**.

Massachusetts Institute of Technology

06/2019

Bachelor of Science, Electrical Engineering and Computer Science, GPA: 4.9/5.0

Cambridge, MA

PUBLICATIONS & PATENTS

- **Pearl: A Foundation Model for Placing Every Atom in the Right Location**. Coauthor, arXiv preprint. 10/2025
- **Chemical computation graphs** (US20240233880A1). 07/2024
- **Computational platform for generating molecules** (US20240233882A1). 07/2024

HONORS AND AWARDS

- **King's Scholarship**, one of nine selected annually in Thailand for fully funded undergraduate study. 2014 – 2019
- **International Physics Olympiad**, Gold Medal, 38th from 383 contestants over 85 countries. 07/2014

SKILLS

Languages: Python, SQL, TypeScript/JavaScript; Swift (coursework)

Frameworks & tools: PyTorch, Lightning, React, Flask, PostgreSQL, Docker, Git, Linux