Deep Learning Scientist

Vilya is a computational biotechnology company creating a novel class of medicines to precisely target disease biology. We believe computational approaches are an integral, if not foundational, component of drug discovery and development. Our platform is built on ground-breaking research in advanced computational approaches and taps into uncharted chemical space to design new molecular structures not found in nature.

Our molecules open the door to a brand-new class of medicine with enhanced drug-like properties. We are harnessing the power of our platform to go after previously impossible targets in an array of indications. Vilya's ultimate goal is to solve some of the most challenging unmet medical needs that exist today.

Our Vision: Harness a revolution in technology and biology to better human health

Our Mission: Build an independent, leading biotech company founded on intelligent drug design to cure the incurable

We are seeking a highly-motivated, creative, and knowledgeable Deep Learning Scientist to help build Vilya as a key member of the ML/DL Design team. The role is responsible for developing and maintaining deep learning frameworks that power Vilya's platform to design new drugs.

RESPONSIBILITIES:

- **Design**, **develop**, **optimize**, and **maintain** deep learning frameworks that support and power Vilya's drug design pipeline for macrocycles.
- **Collaborate** and **communicate** with the interdisciplinary Vilya team, understand the domain problems, and apply deep learning to solve challenges.
- **Apply** and **implement** state of the art deep learning techniques in related fields (e.g. geometric deep learning, protein deep learning, etc...) to continuously improve our approaches to drug design and development.
- **Communicate** and **consult** with external scientific advisors in matters related to deep learning.

BASIC QUALIFICATIONS:

- Ph.D. (or equivalent industry experience) in computer science, mathematics, chemistry, physics, biochemistry, or related fields.
- Strong understanding of fundamental machine learning theories.
- Experience developing, deploying, and managing deep learning models and formatting datasets for real-world problems.
- Clear mathematical understanding of the deep learning techniques relevant in the protein deep learning field (e.g. transformers, SE3 models, AlphaFold2, etc...)
- Proficiency in the Python/Pytorch framework for developing deep learning models.
- Drive to constantly continue learning domain-specific knowledge.
- Ability to work well with an interdisciplinary team and to communicate complex scientific ideas to diverse audiences.

PREFERRED QUALIFICATIONS:

- 4+ years of hands-on experience in developing deep learning models.
- Expertise in geometric deep learning and point cloud modeling.
- Expertise in DL-based protein structure prediction.
- Experience performing deep learning on small molecule/protein structures.
- Exposure to concepts in ADME / Tox / DMPK