Genentech

A Member of the Roche Group

(/)

SENIOR MACHINE LEARNING SCIENTIST, BRAID (CLINICAL SCIENCES ML)

South San Francisco, California, United States of America Full time

‹ Back to search results (https://careers.gene.com/us/en/c/data-science-ai-ml-jobs?from=10&s=1)

‹ Previous job (https://careers.gene.com/us/en/job/202503-106143/Senior-Machine-Learning-Scientist-BRAID-Perturbation-Biology)

Next job › (https://careers.gene.com/us/en/job/202507-117978/Project-Manager-Computational-Sciences

APPLY NOW (HTTPS://CAREERS.GENE.COM/US/EN/APPLY?JOBSEQNO=GENEUS202506114206EXTERNALENUS&PJID=BD3D9B71-DD35-4C2A-A242-7992192EBEFA&UID=198142

SAVE JOB

THE POSITION

A healthier future. It's what drives us to innovate. To continuously advance science and ensure everyone has access to the healthcare they need today and for gen
Creating a world where we all have more time with the people we love. That's what makes us Roche.

Advances in AI, data, and computational sciences are transforming drug discovery and development. Roche's Research and Early Development organisations at Ge
Pharma (pRED) have demonstrated how these technologies accelerate R&D, leveraging data and novel computational models to drive impact. Seamless data sharin
across gRED and pRED are essential to maximising these opportunities. The new Computational Sciences Center of Excellence (CoE) is a strategic, unified group w
the transformative power of data and Artificial Intelligence (AI) to assist our scientists in both pRED and gRED to deliver more innovative and transformative medic
worldwide.

The Opportunity

Genentech is seeking an exceptional Senior Machine Learning Scientist to join the BRAID (Biology Research | AI Development) team within our Computational Scie role will focus on developing novel machine learning methods to transform clinical trial design and translational medicine, with a strong emphasis on foundation m genomics and real-world data. You will work at the intersection of machine learning, omics (DNA, RNA), and EHR data, advancing algorithms that integrate biologi modalities to improve patient stratification, target selection, and treatment outcomes. The ideal candidate will possess in-depth expertise in modern machine lear transformer-based models, generative modeling, representation learning) and a track record of impactful research in clinical genomics or multimodal biomedical da for interdisciplinary collaboration and a commitment to open scientific communication are essential.

In this role, you will:

- Design and implement novel machine learning algorithms tailored to the complexities of clinical trial data (e.g., sequence models for patient omics data).
- Collaborate with cross-functional teams including biologists, clinicians, data scientists, and other stakeholders to integrate machine learning solutions into cli
- Work closely with biologists, clinicians, and translational scientists to develop clinically meaningful AI tools that integrate molecular signatures, patient trajectories outcomes.
- Analyze large-scale datasets including whole transcriptome, whole exome, and real-world clinical data to derive insights into disease progression, treatment res stratification.
- Maintain awareness of current research trends in machine learning for biomedicine and contribute to scientific leadership in this space.
- Publish research in top-tier ML and computational biology conferences and journals.

Who you are

- Educational Background: Ph.D. in Computer Science, Machine Learning, Statistics, Mathematics, Physics, or a related field.
- Experience: Proven track record of developing and applying advanced ML models in a research or industry setting.
- Technical Skills:
  - Proficiency in scientific programming languages such as Python as well as MLOps workflows (e.g., familiar with code version control, high-performance comp and machine learning experiment monitoring workflows)
  - Strong experience with ML frameworks such as PyTorch, JAX, or TensorFlow.
  - Solid foundation in probabilistic modeling, deep learning, and representation learning.
- Soft Skills: Excellent communication, collaboration, and problem-solving skills.
- Publications: Strong publication record in ML, bioinformatics, or computational biology venues (e.g., NeurIPS, ICML, ICLR, RECOMB, Bioinformatics).

Preferred

- Prior experience developing foundation models for omics or EHR data, including pretraining or fine-tuning strategies.
- Deep knowledge of representation learning, generative modeling (e.g., VAEs, diffusion models, masked transformers), and multi-modal learning.
- Experience integrating biological priors (e.g., pathways, ontologies, knowledge graphs) into model design.
- Passion for advancing healthcare through innovation in ML and computational biology.

This opportunity needs to be based at Genentech in South San Francisco, and relocation benefits are available.

The expected salary range for this position, based on the primary location of California, is $167,400 - 310,800. Actual pay will be determined based on experienc geographic location, and other job-related factors permitted by law. A discretionary annual bonus may be available based on individual and Company performance qualifies for the benefits detailed at the link provided below.

Benefits (http://roche.ehr.com/default.ashx?CLASSNAME=splash)

#ComputationCoE

#tech4lifeComputationalScience

#tech4lifeAI

Genentech is an equal opportunity employer. It is our policy and practice to employ, promote, and otherwise treat any and all employees and applicants on the bas qualifications, and competence. The company's policy prohibits unlawful discrimination, including but not limited to, discrimination on the basis of Protected Vete with disabilities status, and consistent with all federal, state, or local laws.

If you have a disability and need an accommodation in relation to the online application process, please contact us by completing this form Accommodations for A (https://docs.google.com/forms/d/e/1FAIpQLSdZWIsbfQOvFVIQgHE_iDzWUTlhZvj6FytIzjS7xq6IGh1H5g/viewform).