AI Scientist, Small Molecule Pharmaceutical Sciences

Description
Genentech Small Molecule Drug Discovery (SMDD) is expanding our AI effort to make the hunt for new pharmaceuticals quicker, cheaper for society, and more effective. We are seeking a self-motivated scientist to apply artificial intelligence (AI) /machine learning (ML) to SMDD data sets. The scientist will partner with chemists and other members of the SMDD AI/ML team to propose and develop new solutions for complex problems.

You will collaborate with scientists across Small Molecule Pharmaceutical Sciences (SMPS) and the broader SMDD organization to identify the highest impact scientific challenges. You will identify, evaluate, and propose new methods and algorithms to address those challenges.

You will conduct ML research and implement cutting edge methods, focusing on reaction prediction with an emphasis on catalysis, process design and optimization.

You will write structured, tested, readable and maintainable code, and participate in code reviews to ensure code quality and distribute knowledge. You will collaborate with our SMDD AI/ML and software engineering teams to drive the application and development of best practices for application/algorithm development and data analysis.

You will work towards generalizing the methods you develop so that they can be used by non-experts and support your teammates by encouraging learning and growth in their data science/ML capacities.

You will actively engage with academic groups at the forefront of the field.

You will publish high quality impactful scientific articles and present at conferences, business meetings and academic institutions.

Who You Are

- Ph.D. degree in Chemistry or B.S. in Chemistry and Ph.D. in Computer Science or Chemical Engineering with an emphasis on data machine learning/data science, or equivalent training.
- Proficiency in Python and strong experience with data analysis and visualization as well as statistical modeling.
- Demonstrated experience with deep learning frameworks (e.g., Keras, TensorFlow, PyTorch)

Preferred: cheminformatics-specific Python packages (RDKit, OEChem).

- Fluent with architecting analysis pipelines, including data modeling, indexing, and ETL.
- 3+ years’ experience designing and training machine learning models on complex, sparse datasets
- Outstanding record of innovation and success in multiple projects over the course of their graduate, post-doctoral and industrial career as documented through a strong peer-reviewed scientific publication track record.
- Excellent communication and collaboration skills, and genuine interest in translating basic research insights into impactful therapeutics.
• Ability to take initiative, provide strategic input, problem solve, and communicate clearly in a cross-functional capacity.
• Proficiency in English, both written and verbal.

Applicant should plan to submit a short Research Summary in addition to their CV.

Who We Are
Genentech, a member of the Roche group and founder of the biotechnology industry, is dedicated to pursuing groundbreaking science to discover and develop medicines for people with serious and life-threatening diseases. To solve the world’s most complex health challenges, we ask bigger questions that challenge our industry and the boundaries of science to transform society. Our transformational discoveries include the first targeted antibody for cancer and the first medicine for primary progressive multiple sclerosis.

Diversity and Inclusion (D&I) are critical to the success of our company and our impact on society. We believe that by championing diversity of background, thought and experience, we can foster a sense of belonging and provide an environment where every employee feels valued, included, and able to contribute their best for the patients we serve. We’re focused on attracting, retaining, developing and advancing our people to their full potential by rewarding bold ways of thinking and integrating inclusive behaviors into every aspect of our work.

The next step is yours. To apply today, click here [http://bit.ly/3t1SE1z](http://bit.ly/3t1SE1z)

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