Machine Learning Intern

Job ID
REQ-10065883

11 10, 2025

Switzerland

Are you passionate about AI and curious how it can transform the way we discover new medicines?

Join our Pharmacokinetic Sciences (PKS) Data Science team in the Translational Medicine Department for a Machine Learning Internship and explore how explainable artificial intelligence (XAI) can accelerate drug discovery. Over the course of your internship, you'll dive into the development and validation of novel interpretation methods for AI/ML models focused on molecular property prediction and ADME/PK modeling.

Working alongside experienced data scientists, medicinal chemists, and pharmacokinetics experts, you'll help uncover actionable insights and create intuitive visualizations that make complex models more transparent. This is a unique opportunity to grow your skills in machine learning and data science while contributing to the development of life-changing therapies at Novartis.

About the Role

Location: Basel, Switzerland, #LI-Hybrid

This internship is limited to 6 months, with the opportunity to start as soon as possible.

Please note that we can only accept applicants who are eligible to work in Switzerland.

Key Responsibilities:

- Implement novel interpretation methods to explain AI/ML predictions for molecular properties and ADME/PK models
- Validate XAI results in collaboration with medicinal chemists and PK experts to derive actionable insights
- Create intuitive visualizations of XAI outputs for scientific audiences
- Present project outcomes to technical and non-technical audiences
- Disseminate findings through publications and presentations

Essential Requirements:

- MSc in a quantitative field or life sciences, preferably with multidisciplinary background (cheminformatics, bioinformatics, biomedical data science)
- Strong understanding of statistics and experience with machine learning / deep learning
- Expert knowledge of Python
- Experience with reproducible data science tools and practices
- Excellent communication skills and ability to translate analytical concepts for diverse audiences (English is our primary language)

Desired Requirements:

- Previous research experience either in academia or industry
- Experience in explainable AI and uncertainty quantification
- Knowledge of ADME/PK modeling and pharmaceutical data science

Commitment to Diversity & Inclusion:

Novartis is committed to building an outstanding, inclusive work environment and diverse team's representative of the patients and communities we serve.

Our recruitment decisions are based on selecting the best person for the job, regardless of gender, religion, age, color, race, sexual orientation, nationality or disability.

Accessibility and accommodation:

Novartis is committed to working with and providing reasonable accommodation to all individuals. If, because of a medical condition or disability, you need a reasonable accommodation for any part of the recruitment process, or in order to receive more detailed information about the essential functions of a position, please send an e-mail to diversity.inclusion_ch@ novartis.com, and let us know the nature of your request and your contact information. Please include the job requisition number in your message.

Application deadline: November 24 EOB.

Please submit a cover letter that includes your motivation for the position and from when you will be available.

Why Novartis: Helping people with disease and their families takes more than innovative science. It takes a community of smart, passionate people like you. Collaborating, supporting and inspiring each other. Combining to achieve breakthroughs that change patients' lives. Ready to create a brighter future together? https://www.novartis.com/about/strategy/people-and-culture

Join our Novartis Network: Not the right Novartis role for you? Sign up to our talent community to stay connected and learn about suitable career opportunities as soon as they come up: https://talentnetwork.novartis.com/network

Benefits and Rewards: Read our handbook to learn about all the ways we'll help you thrive personally and professionally: https://www.novartis.com/careers/benefits-rewards

Biomedical Research

Business Unit
Pharma Research

Switzerland

Basel (City)

Company / Legal Entity
CO28 (FCRS = CHO28) Novartis Pharma AG

Functional Area
Others

Job Type
Full time

Employment Type
Early Career (Fixed Term)

Shift Work
No

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