

Intern with Oracle Labs!

The Automated Machine Learning with Explainability (AutoMLx) group at Oracle Labs has open internship positions available on Machine Learning development topics.

Oracle

Oracle, a global provider of enterprise cloud computing, is empowering businesses of all sizes on their journey of digital transformation. Oracle Cloud provides leading-edge capabilities in software as a service, platform as a service, infrastructure as a service, and data as a service.

Oracle's application suites, platforms, and infrastructure leverage both the latest technologies and emerging ones – including artificial intelligence, machine learning, blockchain, and Internet of Things – in ways that create business differentiation and advantage for customers. Continued technological advances are always on the horizon.

Oracle Labs

Oracle Labs is the advanced research and development arm of Oracle. We focus on the development of technologies that keep Oracle at the forefront of the computer industry. Oracle Labs researchers look for novel approaches and methodologies, often taking on projects with high risk or uncertainty, or that are difficult to tackle within a product-development organization. Oracle Labs research is focused on real-world outcomes: our researchers aim to develop technologies that will someday play a significant role in the evolution of technology and society. For example, chip multithreading and the Java programming language grew out of work done in Oracle Labs.

Internship Details

Machine learning (ML) is at the forefront of the rising popularity of data-driven software applications. The resulting rapid proliferation of ML technology, explosive data growth, and shortage of data science expertise have caused the industry to face increasingly challenging demands to keep up with fast-paced develop-and-deploy model lifecycles. Recent academic and industrial research efforts have started to address this problem through automated machine learning (AutoML) pipelines and have focused on model performance as the first-order design objective. Oracle AutoML [1] is a novel iteration-free AutoML pipeline designed to not only provide accurate models, but also in a shorter runtime. These objectives are achieved by eliminating the need to continuously iterate over various pipeline configurations. Our approach to AutoML has been shown to achieve better scores at a fraction of the time compared to state-of-the-art, making it a prime candidate for addressing industry challenges.

Moreover, as there is an ever-increasing number of deployed models, automated explainability techniques are required to provide insight into their complex behavior and the data they work with. They help humans understand the reasons behind model predictions as well as aid in debugging, improve performance, identify bias and unfairness in the models, and potentially support compliance with new regulations such as "right to explanation". Our group is focused on building a novel framework that gives novice and advanced data scientists the power of AutoML and explainability in a single, easy-to-use, python package.

Featured internship topics: AutoML and/or explainability for classification, regression, anomaly detection, and forecasting tasks; Explore support for federated learning; Explore techniques to reduce model bias while tuning; Extend dataset support for unstructured (e.g., NLP) and semi-structured (e.g., video/audio/graph) data; Generic model support including GNNs, DNNs and/or RNNs.

References

[1] Yakovlev, Anatoly, et al. "Oracle automl: a fast and predictive automl pipeline." Proceedings of the VLDB Endowment 13.12 (2020): 3166-3180.

Required Skills

The successful candidate is expected to complete the internship using a wide and diverse set of skills.

- Understanding of ML, including traditional and DL algorithms
- Experience with python, scikit-learn, Tensorflow and/or PyTorch
- Familiarity with anomaly detection or forecasting algorithms is a plus
- Excellent problem-solving and analytical skills
- A grade of at least 5.0 in the master/bachelor studies and at least 5.0 in a machine learning course is required.

Internship Facts

The duration of the internship can vary based on the candidate's constraints. The usual duration is 6 months. We pay a competitive salary. The research topics listed are informative, we are open to suggestions depending on your skills and qualifications. By sending in your application, you opt-in for processing your personal information.

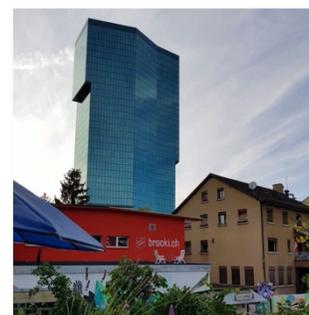
If this sounds like you, we hope to meet you!

How to Apply

After reviewing the [Oracle Labs internship program](#), please provide us with the following information to apply:

- Your CV or link to your home page containing your curriculum
- Description of your motivation and area(s) of interest
- Availability and preferred internship duration
- Preferred location

If available, please apply to this topic via the internship portal of your university. Alternatively, send an email with the aforementioned information to hesam.fathi.moghadam@oracle.com.



Our beautiful offices at Prime Tower

“Oracle Labs is a great place to perform meaningful research which can directly impact the industry. Projects are well supervised, and the people are always there to help you in order to end up with a successful project.”

Mikael Morales
Former EPFL student,
6-month intern

About Us

Innovation starts with inclusion at Oracle. We are committed to creating a workplace where all kinds of people can be themselves and do their best work. It's when everyone's voice is heard and valued, that we are inspired to go beyond what's been done before. That's why we need people with diverse backgrounds, beliefs, and abilities to help us create the future, and are proud to be an affirmative-action equal opportunity employer.

Oracle is an Equal Employment Opportunity Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, sexual orientation, gender identity, disability and protected veterans status, age, or any other characteristic protected by law. Oracle will consider for employment qualified applicants with arrest and conviction records pursuant to applicable law.

Life at Oracle

An Oracle career can span industries, roles, countries and cultures, giving you the opportunity to tackle new roles and challenges, while blending work and life. Oracle has thrived through 40+ years of change by innovating and operating with integrity while delivering for the top companies in almost every industry. To nurture the talent that makes this happen, we work hard to build a vibrant and inspiring workplace that celebrates diverse, hardworking teams where everyone can contribute. We take care of each other, and value giving back to the community. We have flexible work arrangements and offer benefits including generous paid parental leave and comprehensive premium medical insurance.

We will ensure that individuals with disabilities are provided reasonable accommodation to participate in the job application or interview process, to perform crucial job functions, and to receive other benefits and privileges of employment. Please contact us to request accommodation.

At Oracle, we don't just respect differences—we celebrate them. We believe that innovation starts with inclusion and to create the future we need people with diverse backgrounds, perspectives, and abilities. That's why we're committed to creating a workplace where all kinds of people can do their best work. It's when everyone's voice is heard and valued that we're inspired to go beyond what's been done before.

[More information on Oracle's stance on diversity and inclusion](#)