

Intern with Domain Global Graphs!

The Domain Global Graphs team at Oracle Labs, which focuses on machine learning and data/graph analytics for enterprise domain data, has open internship positions available.

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.

Domain Global Graphs

For enterprise use cases of PGX [1] and Data Studio, organizations often adopt a graph data model to integrate various data sources into one global view from their enterprise domain (e.g., financial [2], retail or healthcare data), so that they can run graph analytics and conduct investigations on them. The Domain Global Graph team helps with the integration of PGX and Data Studio into solutions that support the investigation of domain global graphs, and helps with further research on how to produce additional insight to facilitate investigation, e.g., by using ML techniques.

Internship Details

As part of your internship, you will be working with the Domain Global Graphs team – for example by researching, designing and implementing new features, enhancing existing functionality, measuring and improving performance, fixing bugs, etc. While specific internship topics may change, here is a selection of current focus items.

Text to Graph Conversion

Recognizing graph entities and their relationship from text and tables, employing and improving techniques such as Natural Language Processing (NLP), Named Entity Recognition (NER), Relation Extraction, and Co-Reference Resolution.

Assistance and Automation of Global Graph Investigation Workflows

Improving global graph investigation, e.g., regarding financial patterns by detecting similar or relevant subgraphs, or by automating the processing and classification of cases under investigation, or with recommendation techniques.

Advanced Entity Resolution at Scale

Improving Entity Resolution (ER) pipelines and scaling them to millions of entities, e.g., by investigating the use of blocking techniques as well as vector similarity search techniques. Apply advanced post-processing by utilizing graph structure and properties of the resolved entities.

Productization of Machine Learning and Graph Analytics Research

Collaborating with engineers in the financial crime and compliance team to streamline the delivery of our machine learning and graph analytics research projects. Write high-quality code to serve models behind APIs and build reusable components used throughout the machine learning operations lifecycle, such as active learning, model robustness, or uncertainty quantification. Integrate your work with the existing Oracle Financial Services Model Management and Governance [3] solutions.

References

[1] Parallel Graph AnalytiX (PGX), <http://www.oracle.com/technetwork/oracle-labs/parallel-graph-analytix/overview/index.html>

[2] Financial Crime and Compliance Studio, <https://www.oracle.com/industries/financial-services/analytics/crime-compliance-studio/>

[3] Oracle Financial Services Model Management and Governance, <https://www.oracle.com/a/ocom/docs/industries/financial-services/fs-model-management-governance-ds.pdf>



Image Caption 1. 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

Qualifications

The person stepping into this role is expected to complete the internship using a wide and diverse set of skills.

Required Skills

- Thorough understanding of CS fundamentals including data structures, algorithms and complexity analysis
- Understanding of machine learning and deep learning algorithms
- Experience with object-oriented programming
- Experience with Python programming
- Good problem-solving and analytical skills

Preferred Skills

- Experience with Java programming
- Basic understanding of parallel, concurrent, and/or distributed programming
- Basic understanding of machine learning and deep learning algorithms
- Experience with Linux (e.g., bash scripts)
- Familiarity with graph-analytic algorithms
- A high GPA in the master studies
- A high GPA in a machine learning course

Desired Skills

- Experience with Big Data (e.g., Hadoop, Spark).
- Experience with SQL, Kubernetes, Docker, Gradle, Jenkins.
- Experience with text search systems (e.g., Elasticsearch).

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 Marcel Gwerder (marcel.gwerder@oracle.com).

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 la

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](#)