

# OSM - IDP

## About OSM

OSM is a deep tech startup based in Munich. We are reinventing the data layer so AI agents can reason about structured data deterministically. At the center is a proprietary approach to querying structured data using combinatorial optimization and mathematical modeling. We are a small, international and VC funded team from CDTM and LMU. You will work at eye-level with the founders, which comes with a high level of ownership and impact but also personal responsibility. This is a chance to rethink a fundamental piece of the software infrastructure in a scrappy, cross-disciplinary team.

## What OSM offers

- Direct ownership and influence over our software and culture with immediate impact.
- Fast paced work environment with a deep technical founding team.
- Exposure to pre-seed startup building, investor interactions and fundraising.
- Option to become one of our first full time engineers post IDP.

**We are looking for 1–4 students to join us as Optimization Developers and Database Developers to help bring our vision to life.**

### Optimization Engineer

#### Qualifications

- Bachelor or Master student in optimization, applied mathematics, computer science or related field.
- Experience programming in Python, Rust, C++ or similar.
- Knowledge of optimization software: Gurobi, CPLEX or similar.
- Exceptional problem-solving with a bias towards practical solutions.
- Demonstrated ability to thrive in ambiguous, fast-paced environments.
- High level of self sufficiency and interest in product ownership.

#### Responsibilities

- Integrate state-of-the-art open- and closed-source solvers and meta-heuristics.
- Design proprietary optimization approaches and solvers as the project matures.
- Support the developers architecting the interface and data layer for optimization-querying.

### Database Engineer

#### Qualifications

- Bachelor or Master student in databases, computer science or related field.
- Experience programming in Python, Rust, C++ or similar.
- Knowledge of database architecture and software: Apache Arrow, SQL, NoSQL, or similar.
- Exceptional problem-solving with a bias towards practical solutions.
- Demonstrated ability to thrive in ambiguous, fast-paced environments.
- High level of self sufficiency and interest in product ownership.

#### Responsibilities

- Develop the query execution integrations for various sources of structured data.
- Use columnar data and in-database computation to boost optimization-querying efficiency.
- Support the developers in writing a language that intuitively supports diverse types of structured data, in particular knowledge graphs.

The final scope and focus of the project will be defined together with the students, based on their interests and skills.

**Send your latest CV to: [soren@osm-data.com](mailto:soren@osm-data.com)**