Batch Processing of Shortest Path Queries on Apache Spark

Master

Summary
Design and develop algorithms for processing large workloads of shortest path queries simultaneously using Apache Spark.

Project Phase
Review, implement and evaluate existing algorithms that allow the simultaneous processing of shortest path queries.

Thesis Phase
Study query-based partitioning schemes to split a large workload into smaller workloads and design solutions for the index-based parallel simultaneous computation of the smaller workloads.

Requirements
- Experience in Java programming
- Course on Algorithms and Data Structures (or equivalent)

Preferable Courses (or equivalent)
- Graph Data Management and Analysis
- Efficient Route Planning Techniques

Benefits
- Push state of the art and work with real-world applications
- Drink the best coffee at the University

Contact
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