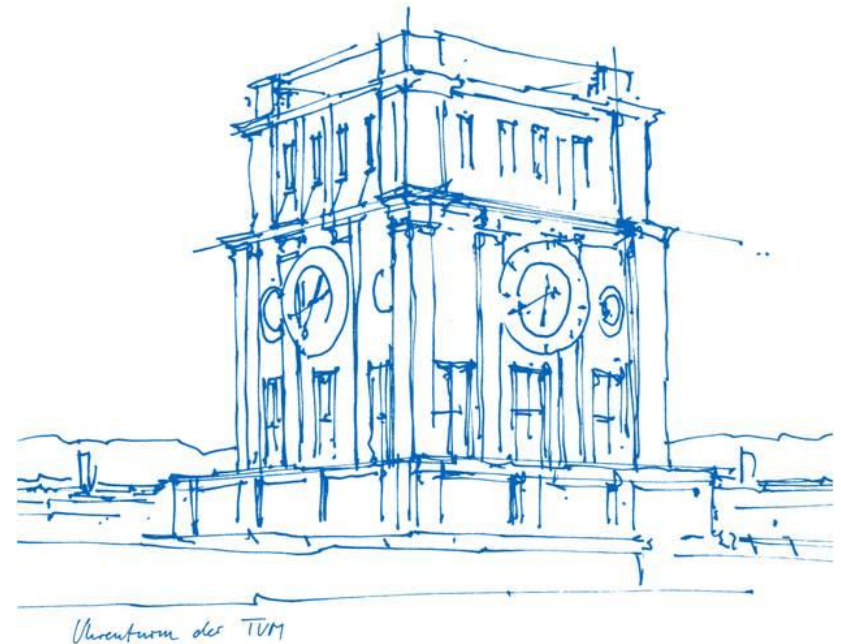


# The Robotaxi Fleet Management Tool of the Future ✨ – by the Delamain Corporation

Lena Elisabeth Holtmannspötter, Emil Jeleskovic, Xuanqi Meng and Felix Schnabel

HackaTUM

Garching, 24.11.2024

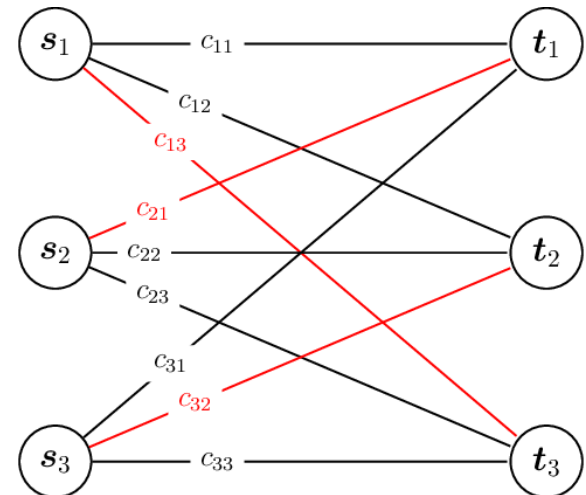


# Our patented Optimization Algorithmen

## Features:

- Core of the algorithm: Cars are allocated based on a minimum average waiting time
- Hunger-avoidance: Inspired by the Linux Kernel scheduler, we build a prioritizing allocation algorithm.
- Energy-biased: To ensure vehicle longevity and protect the planet, a penalty is applied to over-utilized vehicles
- Utilizing linear sum assignment to achieve a global minimum of average waiting time or to serve as a heuristic search tool for finding the best solution.

$$\text{Score} = \frac{\text{waitingTime}}{\text{Priority}} + \frac{\text{TotalDistance}}{\text{Penalty}}$$



# Live Demo