

Optimizing Last-Mile Deliveries at Amazon

Renato F. Werneck  

Amazon, San Francisco, CA, USA

Abstract

Amazon delivers tens of millions of shipments worldwide on a daily basis. Planning the last-mile routes that reach final customers requires solving combinatorial optimization problems at massive scale. While designing and engineering efficient algorithms is essential to address this challenge, it is far from sufficient. Drawing on practical examples, this talk argues that properly framing the problem, choosing the right metrics, and navigating real-world operational and organizational constraints are just as critical. In fact, they ultimately shape the algorithms themselves.

2012 ACM Subject Classification Applied computing → Transportation

Keywords and phrases Vehicle Routing, Route Planning, Last-Mile Logistics, Algorithm Engineering

Digital Object Identifier 10.4230/OASICS.ATMOS.2026.1

Category Invited Talk



© Renato F. Werneck;

licensed under Creative Commons License CC-BY 4.0

26th Symposium on Algorithmic Approaches for Transportation Modelling, Optimization, and Systems (ATMOS 2026).

Editors: Valentina Cacchiani and Stefan Funke; Article No. 1; pp. 1:1–1:1



OpenAccess Series in Informatics

Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl Publishing, Germany