



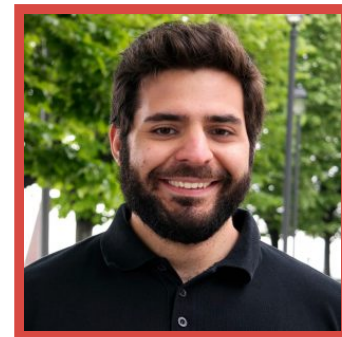
POLITECNICO
DI TORINO

SmartData@PoliTO



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SmartTalk: on Microsoft Teams



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Data-driven allocation of Amazon's sort centers

ABSTRACT

The core of Amazon's success is the efficient design and management of its delivery network. To reach this level of QoS, the scientific approach behind the freight delivery is relevant.

In this talk, I will talk about my internship experience in this environment. I joined the strategic network plan. The main task of this team is to create the backbone able to maintain the delivery promises to the customers which ensures that the delivery expectations of each customer are met.

Initially, I will explain the context of the work by giving some definitions and illustrating the tools involved in this chain. Then I will show the tool I developed able to improve the network plan. In particular taking as input a network output having some unallocated demand, the tool searches (through a greedy algorithm) a possible path to get this demand allocated, without adding any cost and reducing the manual intervention on a given solution.

BIOGRAPHY

Michele Cocca was born in Rivoli (TO) on August 20, 1991. He received the Bachelor's degree in Computer Engineering in July 2015, from Politecnico di Torino. During the Master degree studies, he joined into UMAP developing team, a platform able to retrieve and analyze car-sharing users' patterns. In October 2017 he received the Master Degree in ICT for Smart Societies. He definitely joined the TNG group as a Ph.D. student, under the supervision of Prof. Marco Mellia in a joint scholarship with the Federal University of Minas Gerais (Brazil). This project will address common problems in Big Data research like:

- Acquire and consolidate heterogeneous data,
- Build on those data models able to predict people's routines,
- Use them to optimize public services efficiency.

Current areas of interest:

- Big data analysis,
- Mobility.