Project name	Crowd Prediction & Mobility Management
Description	In Amsterdam we are trying to move to a mobility management system that is based on data and predictive models of traffic. This should allow the city to implement counter measures to prevent crowds and congestion, rather than to (ineffectively) react to it. What makes this problem so interesting is that it covers all modalities - that is, crowdedness on the roads, in parking garages, shared mobility and public transport, as well as bicycle paths and pedestrian areas. Available data sources include not only counts of cars and people from different sensors around the city (e.g. the Crowd Monitoring System Amsterdam, CMSA), but also weather data, events information, holidays, social media and many others. Furthermore, various sources present a different partial view of the relative crowdedness levels over the whole city - e.g. how busy a certain neighborhood, road or a venue is at a specific time of the day or compared to similar locations. But are all of these sources and measurements correlated, and do they hold predictive power for one another? Can we calibrate the existing relative busyness levels to the numbers from the more scarce concrete sources in order to predict exact numbers of cars or people? And what does it really mean if a 100 people are predicted to be at a certain square at a certain time? Should a policy maker interpret this number as crowded or not? These are only a few of the many questions that you could help us answer. Together with our data engineering team (Mobilab) and our data analysis team (Onderzoek & Kennis) you will unlock and clean the data sources, build predictive models and help us evaluate and explain the performance of the models on real-life data.
Work environment	Within the City of Amsterdam, the student will work with experts from the Chief technology office, [redacted] and the traffic department. Once a week all students gather at the Datalab for more in-depth technical support. What we offer: • Freedom and responsibility • Working in a team of experienced people • Successful outcomes will be implemented • A monthly internship compensation

Expectations	The most important thing is to be eager to explore and learn together and step out of the comfort zone. The aim to achieve results directly applicable and relevant to the municipality. (i.e. not merely an academic paper). In addition to the delivery of useful predictive models, relevant results also include byproducts of the whole data analysis/processing pipeline that could be turned into insightful reports.