NOKIA

INTERNSHIP

Title: Predictive modeling for customer experience management

Nokia's Motive Customer Experience Product Division is the world leading provider of Digital Life Management solutions, with over one hundred customers of the major communications providers. Motive Network Analyzer – Copper provides integrated line testing, diagnostics and optimization for DSL access networks. This software tool helps service providers meet DSL line quality and stability requirements for the successful deployment of high speed internet and triple play services (https://networks.nokia.com/products/motive-network-analyzer).

Over the last decade, a lot of algorithms were developed by Nokia R&D to estimate and/or predict the customer experience as well as to improve it. Recent developments make use of machine learning to facilitate these tasks. For that reason, the data science team within Nokia Applications & Analytics wants to build predictive models able to predict reliably the customer experience.

We are looking for a last-year student to propose and evaluate different self-learning methods. The big data environment and the training set will be audited and provided by the Nokia physical experts team, so focus will be to concentrate on the machine learning aspects. The ultimate goal is to perform a comparison of the performance obtained with the proposed methods against the existing algorithms.

The student will have the opportunity to be confronted to realistic set of data, to cope with huge data base as well as to deal with the business constraints, in collaboration with Nokia data scientists and physical layer experts. This is a nice opportunity to be confronted to real-world telecommunication cases as well as to make the bridge between electrical theory/telecommunication and data science.

Practical aspects:

The internship will take place in Antwerp* or Gosselies* for a period of 40 days.

The required skills are:
1. Good understanding of machine learning concepts (feature extraction, resampling, regression/classification, cross-validation, dimension reduction, clustering, …)
2. Autonomous with at least one of the following programming language (Scala/Python/Java/R)
3. Basic knowledge of telecommunication and transmission lines theory
4. Good verbal and written skills in English
5. Easy-learner about any topics related to machine learning (from theory up-to use of API)
6. Methodical problem solving, good communication skills, strong attention to details, and ability to work well in a close-knit team

*Daily on-site physical presence in the company is not required (remote working allowed), but regular synchronization with team is required.

Profiles: Ingénieur civil en électricité, Ingénieur civil en informatique, Ingénieur civil en biomédical, Informaticien.

Contacts:
Ir. Nicolas Dupuis
nicolas.dn.dupuis@nokia.com
Head of Data Science, DMTS.

Nokia
Copernicuslaan 50
2018 Antwerpen
Belgium

NOKIA