



## **Beca Data Analytics US & Canada**

### **The Big Challenge by Cintra**

#### **Funtions**

- Develop and generate new ideas/projects for using Advanced Analytics with the two strategic goals:
- Optimizing revenues in existing projects in operations,
- Improving accuracy of Traffic and Revenue forecasts by using new data sources and techniques to improve knowledge of main variables affecting the forecasts.
- Develop, lead, and execute Data Analytics projects used either for Business Development activities (analysis of new projects) or for optimization of projects in Operations.
- Support Advanced Analytic projects conducted by analytics teams at Cintra major projects (407 ETR in Toronto and DFW managed lanes).
- Support Cintra Europe and North American Traffic & Revenue teams when using Advanced Analytics for Traffic & Revenue studies.
- Stay informed of new developments in Advanced Analytic techniques, systems, data sources, and providers and explore how to utilize them for the benefit of Cintra.

## Requirements

- Degree in Math, Economy or Civil Engineering
- Master's degree in a quantitative field such as Operations Research, Data Science, Statistics, Industrial Engineering or a related field from an accredited college or university.
- Proficiency in Advanced Analytic Techniques: Regression and Classification, Clustering, Tree-Based methods, Optimization models etc
- Experience in SQL and/or Spark to process, clean and analyze large and messy datasets
- Experience in R and/or Python in implementing data science packages/routines
- Experience in Databases: Creating efficient processes to gather (Cintra's projects and external sources ), store and extract data using RDBMS like Microsoft SQL Server, MySQL, PostgreSQL etc
- Experience with designing data visualizations using software like Tableau to communicate complex data insights to management
- High level of English and Spanish. It will be checked in the selection process and the work will be developed in English.
- Availability to live in the US or Canada
- Flexibility
- Great capacity for learning
- Multitask and problem solver

## Proposal

- Leaders in the development of transport infrastructure projects. Cintra, Ferrovial subsidiary, is one of the leading private developers of transport infrastructure in the world in terms of number of projects and investment volume
- Advanced Analytics has been defined by Cintra as the major tool to explore and identify future sources of competitive advantage. The Data Scientist will be responsible for using data science methods and techniques to address strategic business questions posed by management. The Data Scientist will use his/her analytic skills to help establish methodological approach to address each project and decide the appropriate set of data to be used. Data can come from either proprietary datasets collected from any of Cintra's global toll road projects and/or with data taken from identified and suitable external sources. Responsibilities will also include communicating his/her findings with senior management, developing internal data analytic capabilities within the company, supporting the work of other analytics groups. The Data Scientist will be expected to stay up-to-date on new methods, data sources, and analysis techniques. Although based in Dallas, US and Toronto, Canada this person will be supporting projects and groups in North America and Europe.
- Cintra offers a year internship in US or Canada.
- They will be last one year and will be remunerated
- It will be an opportunity to increase the industry knowledge with the best professionals.
- Innovative projects and continuing changing environment where you will be able to add value from the beginning.