



2013-IPR-G-30-000-1463 Data visualization for container profiling

Position for:

CATEGORY 30

JRC's Contraffic technology for container monitoring and route-based risk analysis requires R&D in data analysis and data mining for very large sets of container shipments data. While such work at present aims at the provision of signals and risk indicators, we wish to develop further the data exploration dimension. The successful candidate will contribute to the further development of the Contraffic technology by developing and testing data mining and data visualization prototypes, featuring interactive tools for both raw data and analysis results, possibly complemented with GIS views. The longer term goal of this team effort is to develop, in collaboration with customs and security authorities, advanced tools to help control the flow of cargo containers through risk analysis.

In addition to software prototypes, the grantholder will be expected to co-author technical reports, technical documentation and scientific publications as a result. He or she may also be called to contribute to collaborative research projects addressing issues related to securing the containerized supply chain.

Qualifications:

An engineer or scientist with a PhD degree in a relevant topic (e.g. data mining, data visualisation, visual business intelligence or other relevant topic) or a minimum of 5-years full-time relevant research experience after the first university degree giving access to PhD studies.

The post requires a strong inclination for creative data exploration frameworks. Obviously, good knowledge of theory and practice with a wide range of data analysis and mining methodologies, data and analyses visualisation, solid experience with working with DBMSs is necessary. Very good hands-on analytical skills (e.g. with Matlab) and presentation capacity is required. Previous experience with large data projects or business intelligence applications will be an advantage.

The position requires very good knowledge of oral and written English and the capacity to work independently and to meet deadlines effectively.

Institute Unit Action	Institute for the Protection and Security of the Citizen Maritime Affairs VESCOSUR Further information: http://ipsc.jrc.ec.europa.eu/?id=310
Indicative duration Preferred starting date	36 months ASAP
JRC Site Country	Ispra Italy
Rules	Grantholders: http://ec.europa.eu/dgs/jrc/downloads/jrc_grantholder_rules.pdf