



## **CGI is now looking for University graduates interested in doing their master thesis work in the area of big data, deep learning and crypto currencies**

- **Create a prototype that automatically will find patterns connected to payments of illegal material**

### **Doing good is good!**

Would you like to do your thesis work and at the same time do something good for humanity? If so here is a unique opportunity to combine not just only social responsibility, but also technology and insight into the world of crypto currencies, financial services business and big data at its forefront.

### **Background**

Many horrible things exist in our society right now, one of the most terrifying area is the sexual exploitation of innocent children. The work performed by the Financial Coalition in Sweden today is to find means to prevent the financial transactions involved in this context. The work has so far been successful, but now there is a growing need to more effectively create a tool that helps to prevent transactions, within this context, using a crypto currency in an online environment.

UN estimates that 750,000 people are online looking at children being sexual abuse at any given time. 80% of the children are under 10 years old. The problem exists everywhere, in all social groups, family situations, environments and workplaces. 1 out of every 1,000 employees look at child abuse content using their company computer. Today the majority use crypto currency to pay for the abuse.

### **Scope of study**

CGI has carried out several master thesis work in the area of crypto currencies, cyberlockers and web traffic pattern analysis. This new master thesis work aims to continue and leverage this work, but add new, more enhanced capabilities in the automatic identification of patterns and explore whether self-learning algorithms could be used as a mean to achieve this.

## **Objectives**

- Research appropriate algorithms, tools and methods in order to realize a prototype that automatically finds patterns connected to payments of illegal material.
- Design and implement the prototype.

## **How**

You will carry out the work in direct cooperation with a smaller team from the Financial Coalition, and you will be guided by a person from CGI knowledgeable in this area. You will also cooperate with the police force and the Swedish banks.

## **Who**

We envision a team of two persons doing this work. A background in computer science is a preference as well as knowledge about encryption, anonymization, deep learning and privacy online. You also need to have a profound interest to learn new things, be creative, structured and have a good understanding for processes and methods. The work will be documented in English.

This work will be fully carried out without having to view any kind of sensitive material.

## **About CGI**

CGI is a leading and dynamic IT-technology and services company, employing 65,000 people across 40 countries (4,000 employees in Sweden). CGI provide business consulting, systems integration and outsourcing to clients around the World. CGI works closely with its customers to enabling change that increases their efficiency accelerates their growth and manage their business risks. CGI apply its deep industry knowledge, technical excellence and global delivery expertise to help customers building leadership positions within their selected markets.

[www.cgi.se](http://www.cgi.se)

## **About Finance coalition**

The Financial Coalition members cooperate with the Swedish National Criminal Police and ECPAT with the purpose of stopping the trade in Child Abusive Material where transactions are made through the financial system. The police bear the ultimate responsibility for combating child pornography. At the same time, the finance industry is a key player in finding solutions for stopping transactions.

Members: Bankföreningen, CGI, Danske bank, DNB, ECPAT Sverige, Forex, Handelsbanken, Ica Banken, Ikano bank, Klarna, Länsförsäkringar Bank, Marginalen Bank, Netclean, Nordea, Nordnet, Santander Consumer Bank, SBAB, SEB, Skandia, Sparbanken Öresund, Sparbankernas Riksförbund, Swedbank, Swift, Trustly, Western Union, WyWallet.

[www.finanskoalitionen.se](http://www.finanskoalitionen.se)

## **If you need more information or have any questions, please contact:**

Johan Wadenholt  
[johan.wadenholt@cgi.com](mailto:johan.wadenholt@cgi.com)

For application, please send CV and personal letter to Johan Wadenholt before 2016-12-15.