

Antonio Kheirkhazadeh | University of West London, UK

# STUDENT PROFILE



## Antonio Kheirkhazadeh

### Course

PhD in Computer Science,  
University of West London, UK

### Year completed

2015

### Title of thesis

On the performance of markup language compression

In his thesis Antonio introduced a new model to manage and store the languages of the web in a more efficient manner.

Antonio's thesis investigated the use of different encoding mechanisms to enhance compression techniques. This research was motivated by the need to achieve better compressed formats for a wider range of data sets in order to improve network transmission and data storage applications. In addition, the aim was to provide an efficient format which could be used to improve networking and storage.

The main objective was to improve compression for the languages of the web and the research focused on the data and information provided in a document in order to enhance compression. This work established a system to automatically allocate more efficient encoding mechanisms to specific sets of data. A model was developed to apply different encoding techniques based on knowledge of current markup language compressors. The model was compared to other compressors and has demonstrated a significant level of compression for a specific set of data. It also provided an analysis of the corpus used to perform the experiments, showing the amount of specific data that exists in real data sets.

This thesis makes a number of technical contributions to the body of knowledge on compression, and enhances our understanding of data through proposing a more advanced model to apply compression. Because of the improved interaction with the software that handles the data, we can generate a more scalable system to run on devices such as mobile phones or embedded hardware. Users can benefit from more responsive and more effective systems due to the reduced amount of information stored on their devices.

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### Supervisors:

**Dr. John Moore and Peter Komisarczuk**

**John Moore** is Lecturer in Computing at the University of West London.

**Prof. Peter Komisarczuk** is Professor of Computing at the University of West London.