

# Aitor Apaolaza

PhD in Computer Science with 3 years of experience as a researcher at the University of Manchester. Responsible for projects requiring extensive data analysis, design and implementation of analysis tools, and evaluation of user interfaces.

## PROJECTS

### **WevQuery** November 2016 - ongoing

I implemented a Web tool to allow non-technical partners to analyse user interaction patterns (WevQuery, best paper award at EICS). WevQuery supports the creation, scalable execution (MapReduce), and analysis of sequences of Web events.

### **MOVING** July 2016 - ongoing

As part of a European consortium with nine industry and academic partners, I instrumented the MOVING information seeking platform to capture Web interaction events. MOVING allows researchers and industrial partners to explore multimedia sources using visualisations and data mining techniques. The captured interaction data is then made available to stakeholders through WevQuery for analysis of user behaviour, personalisation of the interface, and to provide content recommendations. See video for more information: [bit.ly/wevquery-video](http://bit.ly/wevquery-video).

### **IDInteraction** November 2015 - June 2016

In collaboration with the BBC, participants were filmed interacting with a tablet while watching a TV screen. I analysed inertial, interaction, and Kinect data to build predictive models to determine the focus of users' attention when interacting with two screens.

### **UCIVIT** PhD - October 2011 - September 2014

For my PhD, I studied 53 million Web interaction events from 18,000 recurring users over 18 months. I applied linear mixed regression models to discover low-level interaction trends correlated with users' familiarity with a Web site. Outcomes: a) a [Web tool](#) deployable on any Web site that captures low-level Web interaction data unobtrusively; b) an [analysis system](#) to process captured data, extract *micro-behaviours*, and explore trends; c) a [Web application](#) (Rshiny) that provides a visual interface to execute the aforementioned analyses. This tool has been employed in industry (BBC) and academia ([CityVerve](#)) for research projects.

[aitor.apaolaza@manchester.ac.uk](mailto:aitor.apaolaza@manchester.ac.uk)

[www.cs.man.ac.uk/~apaolaza/](http://www.cs.man.ac.uk/~apaolaza/)

## AREAS OF SPECIALIZATION

Human-Computer Interaction

Data Analysis and Modelling

Data Science applied to UX

## MAIN SKILLS

Data analysis (R, Matlab)

Databases (NoSQL, SQL)

Development (JavaScript, Java)

<https://github.com/aapaolaza>

## AWARDS

Best paper award (*WevQuery*, EICS'17)

PhD grant (*Engineering and Physical Sciences Research Council*, UK)

ACM grant (*UIST Doctoral Consortium*)

## PUBLICATIONS

"WevQuery: Testing Hypotheses about Web Interaction Patterns", A. Apaolaza, M.Vigo, EICS'17 (Best paper)

"ABC: Using Object Tracking to Automate Behavioural Coding", A.Apaolaza, R.Haines, A.Aizpurua, A.Brown, M.Evans, S.Jolly, S.Harper, C.Jay, CHI EA'16

"Longitudinal analysis of low-level Web interaction through micro Behaviours", A.Apaolaza, S.Harper, C.Jay, HT'15

"Identifying emergent behaviours from longitudinal web use", A.Apaolaza, UIST'13 Adjunct

"Understanding users in the wild", A.Apaolaza, S.Harper, C.Jay, W4A'13

<https://scholar.google.co.uk/citations?user=5QfLY8AAAAJ>

## EXPERIENCE

### **Research associate, October 2015 - ongoing**

University of Manchester

During this time I have collaborated on various projects (above).

### **Teaching assistant, October 2012 - June 2014**

University of Manchester

Assisted in demonstrating, teaching students and marking their work with the following courses: Object-Oriented Programming with Java, and User Experience.

### **Junior researcher, September 2010 - August 2011**

CICtourGUNE, San Sebastian

Designed tourist-oriented location-aware mobile systems, involving social and augmented reality capabilities. The design of these mobile systems also involved capturing data from their use, location, and bespoke surveys, for analysis. Also collaborated on various research projects focused on enhancing users' touristic experience.

### **Research internship, 2009 - August 2010 (Part-time)**

CICtourGUNE, San Sebastian

Developed an Android application to enhance touristic experiences with social aspects. The application allowed tourists to share pictures and comments of touristic points of interest with the rest of users, as well as obtain more information about these points of interest.

## PREVIOUS EDUCATION

### **University of the Basque Country *Ingeniero en Informática***

September 2004 - August 2010

This undergraduate masters degree included general computer science concepts, including but not limited to: programming (C, Java, and Ada), abstract mathematical methods in computer science, computer networks, databases, graphics applications, artificial intelligence techniques, and industrial robotics and control.

## PERSONAL SKILLS

### **Teamwork**

Experience collaborating on large international projects.

### **Project management skills**

Meeting deadlines, producing deliverables, documenting processes.

## VOLUNTEERING

### **PGR Mentor, University of Manchester**

During my PhD, I was part of the Postgraduate Research mentors group in the School of Computer Science. Mentors arrange social and academic events to help Postgraduate Research students throughout their studies, socially, academically, and with professional advice.

### **Web Chair, ASSETS 2015**

I built and maintained the Website for the ASSETS 2015 conference.

<http://assets15.sigaccess.org/>

## LANGUAGES

English - Fully proficient (C2)

Spanish - Native speaker