

Patrick Sinclair,

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# Dr. Patrick Sinclair

Researcher/Software Engineer

## Personal Details

**Date of Birth:** 9/5/1978

**Nationality:** Joint British/Portuguese

## Experience

**2007-current – Software Engineer, BBC Audio and Music Interactive**

**2007 – Research Fellow, University of Southampton**

In the JISC funded PeerPigeon project (<http://www.peerpigeon.ecs.soton.ac.uk>) I developed a lightweight RESTful architecture for conducting peer review assessments using Ruby on Rails.

**2003-2007 – Research Assistant, University of Southampton**

In the EU funded Sculpteur (<http://www.sculpteurweb.org>) and eCHASE projects (<http://www.echase.org>), I developed tools and techniques for integrating cultural heritage institutions' multimedia collections, including Alinari, De Agostini, Getty Images, the Louvre, National Gallery, ORF, the Uffizi and the Victoria & Albert Museum. I was involved in the development of a web application for searching and browsing the content. I managed a team of student developers working on a multimedia management framework with content-based retrieval functionality.

## Education

**1999-2004 – Ph.D. Computer Science, University of Southampton**

*Integrating Hypermedia Techniques with Augmented Reality Environments*

My research focused on incorporating open hypermedia techniques in augmented reality environments. This led to the development of tangible augmented reality interaction metaphors to allow users to physically manipulate the underlying hypermedia structures to their liking, resulting in a natural and intuitive way to navigate complex information spaces.

**1996-1999 – B.Sc. Computer Science [2.1], University of Southampton**

**1994-1996 – A-levels, Kelly College, Tavistock, Devon UK**

General Studies [A], Portuguese [A], Physics [B], Maths [C], Design Technology [C]

**1992-1994 – GCSEs, St. Julian's School, Carcavelos, Portugal**

GCSEs: 2As, 6Bs, 1C

## **Technical Skills**

### **Programming**

Ruby on Rails

Ruby for scripting and data integration tasks

Java and related tools/technologies: Ant, Eclipse, Hibernate, JDBC, J2EE, JUnit, Maven, Tomcat

Familiarity with Javascript, Perl, C/C++, OpenGL

### **Web Development and Web Services**

XML and XSLT

HTML/CSS/Javascript

Implemented and worked with REST, XML-RPC, SOAP web services

### **Relational Database tools and techniques**

SQL - Experience in designing and querying relational database schemas

MySQL - Experience with installation/maintenance, advanced features such as full text indexing

### **Semantic web tools**

Semantic modeling using RDF/RDFS/OWL, usage of popular models (e.g. SKOS for keywording)

Storage of RDF data using Jena/Sesame/3Store and querying using SPARQL

Conversion and exposure of legacy and relational database information to RDF

### **Other**

Experience using Unix (OS X, Linux) and Windows environments

Source control using CVS and Subversion

## **Research and Other Skills**

Have been involved in all stages of the software engineering life cycle

Able to work alone and as part of a team, some team management experience

Author on several research papers as well as project reports/deliverables

Presented work at international conferences, workshops and tutorials

Presented and demonstrated work to non-technical audiences, e.g. curators/archivists

## **Background and Interests**

I am half Portuguese and bilingual in English/Portuguese

Involved in the creation of a Portuguese student society at the University

Organised successful social events through the society such as an annual Brazilian Carnival Party

Member of the University inline roller hockey team with whom I play in the local BRHA league