

# Will Webberley

*Data, software systems, development, and the web*

I am extremely passionate in the field of technology and development with a natural flair for creating quality systems for a wide range of uses and users. I'm always excited to learn about new technologies from others and through self-taught means. I am a skilled communicator with expertise in working in distributed and multi-disciplinary teams and I enjoy conveying thoughts and ideas through presentations, talks, and discussions.

## Skillset

**I'm highly proficient in and frequently use a wide range of languages, frameworks, and platforms.**

### Languages

Proficient Python, JAVA, PHP, Go, JavaScript, Shell, SQL,  $\text{\LaTeX}$ , HTML & CSS

Intermediate Perl, Ruby, C, C++

### Platforms, Technologies, Techniques, and Frameworks

Proficient Git, Android dev., GNU/Linux & UNIX-like systems, Flask, MongoDB & CouchDB, jQuery & AngularJS, WebSocket, Weka, Node.js, Heroku, AWS, Nginx, Vim, Eclipse/NetBeans

Intermediate Django, Rails, iOS dev.

I am very experienced with and have expertise in writing and consuming various web-based APIs, and working in object-oriented and test-driven environments for platforms ranging from distributed servers to desktop and mobile.

## Recent Experience & Employment

2013–Present **Cardiff University, Research Associate and Lecturer**, Cardiff, UK.

**Research** as part of the International Technology Alliance (ITA) coalition between the UK MoD and the US Army Research Labs. I work (in Python, JavaScript/Node.js, JAVA, etc.) with a variety of US and UK academic and industry partners, such as IBM and Boeing, in advancing information and network sciences.

**Lecturer** of postgraduate masters (MSc Advanced Computer Science) students as module leader of Web and Social Computing. I also lecture two Computer Science undergraduate courses - Human-Computer Interaction (as module leader of ~140 students), and Algorithms & Data Structures.

I teach with consistently good feedback from peers and students, both in terms of technical knowledge and in style & approach. I am responsible for developing course materials, syllabae, exams, and coursework.

2010–2013 **Cardiff University, Tutor and student supervisor**, Cardiff, UK.

Tutoring, supervision, and assessment of BSc and MSc students in practical and theory-based sessions.

**Examples of subjects taught:** Python, JAVA, webapp/API programming, computer architecture, mobile communications and meta heuristics, communication & professional skills, assembly language.

**Examples of projects supervised:** Social media visualisation toolkits, digital asset stores.

## Education

2010–2014 **PhD Computer Science, Cardiff University**,  
"Inferring Interestingness in Online Social Networks".

Exploring information propagation in online social networks. In particular, the use of Bayesian machine learning methodologies in the prediction of tweet popularity in Twitter as a basis for the inference and ranking of interesting user-contributed data.

I have periodically published interesting findings and analyses in proceedings, and have contributed to the "excellent"-rated EU Recognition project.

2007–2010 **BSc Computer Science, Cardiff University**, First-class honours.

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## Community Involvement, Contribution & Output

Projects *Examples of some software projects completed in my spare time:*

- **WekaPy & WekaGo** - Python and Go wrappers for the Weka machine-learning toolkit
  - **Gower Tides** - Native Android app reporting on tides, surf, and weather in the Gower Peninsula
  - **Health-Explorer Wales** - Health data visualisation as part of the 2015 NHS hack-day
- For more, please see [github.com/flyingsparx](https://github.com/flyingsparx) and [flyingsparx.net/output](https://flyingsparx.net/output).

First-author peer-reviewed publications

- "Retweeting beyond Expectation: Inferring Interestingness in Twitter", W.M. Webberley, S.M. Allen, R.M. Whitaker, under review for the journal of *Computer Communications: Special Issue on Online Social Networks*. 2015.
- "Inferring the Interesting Tweets in Your Network", W.M. Webberley, S.M. Allen, R.M. Whitaker, in *Third International Conference on Cloud and Green Computing*. Karlsruhe, Germany, 2013.
- "Retweeting: A Study of Message-Forwarding in Twitter", W.M. Webberley, S.M. Allen, R.M. Whitaker, in *Workshop on Mobile and Online Social Networks, 2011*. Milan, Italy, 2011.

Written

- Invited articles for the Heroku Dev Center:
  - "Direct-to-S3 File Uploads in Node.js", *Heroku 2014*
  - "Direct-to-S3 File Uploads in Python", *Heroku 2013*
- I also maintain an active blog, which is hosted on my website at [flyingsparx.net/blog](https://flyingsparx.net/blog).

Spoken

- **Examples of informal talks given**
  - "Writing Useful Web APIs", 2015
  - "Contributing to the Open-Source World", 2014
  - "The Flask Microframework", 2013
  - "Node.js: An Introduction to Development", 2012
  - "Typesetting with L<sup>A</sup>T<sub>E</sub>X", 2012
  - "Developing Google Chrome Extensions", 2011
- **Examples of formal and academic talks and seminars given**
  - "Inferring Interestingness in OSNs" *Guest speaker at King's College, London, 2014*
  - "Inferring the Interesting Tweets in Your Network", *SOCIETY2.0, Karlsruhe, Germany, 2013*
  - "Finishing a PhD in Under 4 Years", *Cardiff University Research Retreat, 2013*
  - "Weka - the Machine-Learning Toolkit", *Cardiff University MobiSoc Research Group, 2013*
  - "Retweeting: A Study of Message-Forwarding in Twitter", *MOSN'11, Milan, Italy, 2011*

Events

- **Organised**
  - FTS seminar series, *School of Computer Science & Informatics 2010-2013*
  - DigiSocial Hackathon, 2012
- **Taken part in**
  - NHS Hack-Day, 2015
  - Cardiff Open Sauce Hackathon, 2013 - **Award:** 'Openness' Award

General I am currently co-coordinator of Cardiff University's MobiSoc ('mobile & social' computing) research and interests group. I love keeping up with technological news and advances and attending local events, such as those, in Cardiff, held by UnifiedDiff and Cardiff Start.

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## More

My date of birth is the 2<sup>nd</sup> December 1988 and I hold a clean full manual UK driving license. I run, swim, surf, and love music. I often spend my spare time tinkering with home projects and, when I can, I like to relax by playing games and reading novels. A digital version of this CV is available in colour at [flyingsparx.net/cv](https://flyingsparx.net/cv).