

# jonathanknowles

computer software professional

## location

Tainan, Taiwan

## contact

me@jonathanknowles.net  
http://jonathanknowles.net

## languages

English  
(native)  
Mandarin Chinese  
(intermediate)

## skills

♥ Haskell, OCaml  
Scala, Java, Python  
Git, Mercurial

## interests

functional programming, type safety, distributed systems, scalability, concurrency, algorithm design, natural language acquisition

## education

- 2001–2004 **B.A. Computer Science** University of Cambridge  
Awarded distinction (1st class) for dissertation:  
"A scalable platform for distributed computing, utilising thread-safe, high performance data structures and asynchronous message processing."
- 1996–1998 **B.A. Chemistry** University of Oxford  
(completed two years)
- 1994–1996 **General Certificate of Education: Advanced Level** Poole Grammar School  
Mathematics (A), Further Mathematics (A)  
Physics (A), Physics Special Paper (Distinction)  
Chemistry (A)

## experience

- 2008–2012 **Citrix Systems Research & Development, Cambridge, UK** Software Engineer  
Feature Lead for XenServer Dynamic Memory Control.  
Made multiple contributions to XenServer, XenClient products.  
Awarded patents for work in memory allocation and storage.
- 2007–2008 **Canonical Ltd, London, UK** Software Engineer  
Worked on Launchpad.net, an open-source collaborative project management system used by thousands of software projects around the world.
- 2004–2007 **Citrix Systems Research & Development, Cambridge, UK** Software Engineer  
Co-developed the integration of Citrix Web Interface with IBM WebSphere Portal Server, leading scalability and concurrency testing for the project.  
Developed the management interface for the integration of Citrix Web Interface with Microsoft SharePoint.
- 2001–2002 **Computer & Design Services, Dorset, UK** Software Engineer  
Designed a protocol and system to synchronize disconnected databases over SMTP.

## patents

- 2013 **Dynamic time reversal of a tree of images of a virtual hard disk.**  
US 20130219135
- 2011 **Dynamic reallocation of physical memory responsive to virtual machine events.**  
US 20110138147