

# Dan Nixon

Software Engineering Student  
dan-nixon.com

## CONTACT

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## SKILLS

### DEVELOPMENT

#### APPLICATION

C++ • C • Qt • Python • Java  
• Android • OpenGL

#### WEB

HTML5 • CSS3 • Python • Flask  
• JavaScript • SQL

#### HARDWARE

Embedded systems design • RTOS  
• Atmel AVR • STM32

### SYSTEMS MANAGEMENT

#### OPERATING SYSTEMS

Debian Linux • Red Hat Linux  
• Windows XP - 10 • Windows  
Server 2003-2012 • Android • iOS

#### HARDWARE

Local phone systems • Data storage  
and backup • Networking and  
routing • Vehicle tracking

#### SOFTWARE

NGINX • MS IIS server • SharePoint  
server • MS SQL server • MS Active  
Directory

### LANGUAGES

English • Japanese (basic)

## EDUCATION

### NEWCASTLE UNIVERSITY

#### MCOMP IN COMPUTER SCIENCE (GAMES ENGINEERING) WITH YEAR IN INDUSTRY

Expected May 2017 | Newcastle upon Tyne, UK

- **Stage 1 (88.8%)**  
Programming I • Programming II • Software Engineering  
• Computer Architecture • Mathematics • Website Design and  
Construction
- **Stage 2 (83%)**  
Software Engineering • Algorithm Design and Analysis  
• Database Technology • Operating Systems • Computer  
Networks  
**Team project:** Development of an Android application providing  
a centralised event calendar and to-do list using data from the  
university and third party APIs.
- **Stage 3 (79.5%)**  
Distributed Systems • Programming for Games • Gaming  
Simulations • Graphics for Games • Computer Games  
Development • Biologically-inspired Computing • Bioinformatics  
• Cryptography  
**Dissertation:** The application of robust analysis methods on  
sparse data for mass-resolved neutron spectroscopy  
[epubs.stfc.ac.uk/work/29464998](http://epubs.stfc.ac.uk/work/29464998)
- **Stage 4**  
Advanced Programming for Games • Advanced Graphics for  
Games • Advanced Game Technologies • Research Methods for  
Gaming Innovations • Enterprise Skills in the Game Industry  
• Big Data Analysis • Dissertation  
**Team project:** Development of a cross platform PC and console  
game (specific details yet to be decided).

### CALDEW SCHOOL

#### A LEVEL

May 2012 | Carlisle, UK

- Mathematics (B) • Physics (B) • Product Design (A) • Applied  
ICT (B)

## EXPERIENCE

### STFC (BUSINESS APPLICATIONS) | SOFTWARE ENGINEER

Jul 2016 – Aug 2016 | RAL, Oxfordshire, UK

- Development of content managed websites for national  
laboratories facilities.
- Programatically manipulating SharePoint content and templates  
to provide a single method of deployment for all websites.
- Research and problem solving skills.

### ISIS NEUTRON SOURCE (MANTID PROJECT) | SOFTWARE ENGINEER

Jul 2014 – Sep 2015 | RAL, Oxfordshire, UK

- Development of data reduction and analysis routines for inelastic  
neutron scattering data within the MANTID toolkit.
- Developing integration of simulation data to the analysis workflow  
within MANTID.
- [github.com/mantidproject/mantid](https://github.com/mantidproject/mantid)

## LINKS

GitHub: [github.com/DanNixon](https://github.com/DanNixon)

LinkedIn: [linkedin.com/in/nixondan](https://www.linkedin.com/in/nixondan)

## INTERESTS

Electronics • Model Aircraft Building & Flying • Fell Walking • Photography • Paintballing

## REFERENCES

References available upon request.

### **FLUID PIXEL | SOFTWARE ENGINEER**

Jul 2014 – Aug 2014 | Newcastle upon Tyne, UK

- Testing the feasibility of using the BubbleScope 360 degree photography hardware on a Raspberry Pi.
- Development of location aware streaming and timelapse applications to run on a Raspberry Pi with the BubbleScope hardware.
- [github.com/DanNixon/BubbleScopeCL](https://github.com/DanNixon/BubbleScopeCL)

### **STORY HOMES | SOFTWARE ENGINEER**

Jul 2012 – Sep 2012 | Carlisle, UK

- Creation of bespoke desktop applications integrating with data stored on MS SharePoint servers.
- Deployment of a plug-in for MS Outlook enabling users to save email messages to a SharePoint list, replaced use of Scinaptic OnePlaceMail.
- Development of an ArcGIS plug-in which plotted data about land developments from a SharePoint list on a map.
- Facilitated a network divide, in which the local network was divided in to two isolated networks, this involved reorganising the structure of the client devices and setting up several new servers.
- Independent decision making and problem solving.

### **STORY CONTRACTING | SOFTWARE ENGINEER**

Jul 2011 – Sep 2011 | Carlisle, UK

- Developing bespoke applications to manage a database of company mobile contracts and viewing live data from the vehicle tracking system using Android devices.
- Database scripting to be used with the IBM Cognos reporting system.

## PUBLICATIONS

### **GETTING STARTED WITH PYTHON AND RASPBERRY PI**

September 2015

Entry level, tutorial based book that introduces the reader to the Python programming language using the Raspberry Pi as a platform to experiment with physical devices.

### **RASPBERRY PI BLUEPRINTS** March 2015

Project based book describing the theory and build process of 10 projects built using the Raspberry Pi.

## ACTIVITIES

### **STEM EVENTS** 2013 - Present

I frequently volunteer to be involved in a variety of STEM/public engagement events including Maker Faires, hack days, film & comic conventions.

This can range from assisting in running the event or running stands in the exhibition space.

### **CS PEER MENTORING** Sep 2013 - Jan 2014 | Newcastle University

I volunteered to mentor 11 first year computing science students for their first semester at university, assisting them with any problems that have settling in to life at university and Newcastle, answering queries they had related to the course or computing science in general.

### **PAGAN SOCIETY TREASURER** Sep 2013 - Jun 2014 | Newcastle University

Key responsibilities in this role include managing finances for the society, applying for grants available and organising fund raising for the society.

### **DUKE OF EDINBURGH'S SILVER AWARD** Oct 2011 - Mar 2012 | Caldew School

### **YOUNG ENTERPRISE** Sep 2010 - Apr 2011 | Caldew School