

Will Pearson

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I am a student at Sheffield University, in my fourth year studying for an **MEng in Structural Engineering with Architecture**. I have a great interest in the **use and application of computing in the area of structural engineering** and am constantly looking to develop my knowledge of software and programming alongside my regular studies.

Last year I undertook my dissertation module on the subject of Structural Layout Optimisation; I investigated the scope and limitations of a program written by my dissertation tutor. This involved learning some C++ in order to modify the program and also gave me the opportunity to use the University's High Performance Computer Cluster (Iceberg).

Degree Modules

Over the last three years of my MEng degree my studies have included the following:

- structural mechanics and analysis (elastic and plastic, static and dynamic)
- engineering mathematics
- geotechnics
- engineering design, including drawing and surveying
- structural design projects (group and individual)
- bridge engineering
- architecture modules (lectures and studio)

My final year modules include F.E. modelling, fracture mechanics and further group design projects.

Education

<i>2008 - present</i>	University of Sheffield	Working towards a 2:1. (Due to graduate in 2012.)
<i>2006 - 2008</i>	Beechen Cliff Sixth Form, Bath	A Level: Maths (A); Physics (B); Art (A). AS level: Computing (A)
<i>2001 - 2006</i>	Beechen Cliff School, Bath	GCSE: 11 A–C grades

Employment

Internship – January 2012 to present

LimitState Ltd., Sheffield

I am currently working for LimitState Ltd. as part of the Sheffield Internship Scheme. During the course of my internship I will be involved in a number of projects including the testing and development of software and the writing of documentation.

Research Assistant – Summer 2011

Computational Mechanics and Design (CMD) Research Group, Department of Civil and Structural Engineering, University of Sheffield

This position included formatting research papers for submission (using the L^AT_EX typesetting language) as well as drawing figures and graphs (using the Asymptote language) to be included within. I also had the chance to get involved with some of the research happening in the department including building and processing data from Finite Element models (using LS-DYNA/LS-PrePost) and writing documentation in a wiki format.

During this time my ability to adapt quickly to these new software tools was thoroughly tested. I also learnt about time management and how team members, such as those in the CMD group, work collaboratively using version control systems such as Subversion. The skills I developed in formatting have since been transferred back to my studies when I took responsibility for the compilation and presentation of a feasibility report for a recent group project; My group went on to “win” the bid.

Assistant (part-time) – November 2006 - September 2008, July - Sept 2009

W. M. Morrisons, Bath

Industry Experience

Summer 2011 Research Assistant (Dept. of Civil & Struct. Eng., University of Sheffield)
19th August 2010 Bath Riverside Development meetings (Buro Happold, Bath office)
18th August 2010 London 2012 Team Stadium design office inc. site visit (Buro Happold)
May 2008 Site visit to St. David's 2 Development, Cardiff (Whitbybird)
June 2007 3 day intro placement (Buro Happold, Bath Office)

My work experience to date has been very valuable in helping with the important decisions concerning my education as a structural engineer.

Key Achievements

- “Winning” bid in several group design/feasibility projects
- Duke of Edinburgh Silver Award
- Duke of Edinburgh Gold Award (Expedition only)

Key Skills

Technical Skills

Software

- AutoCAD
- Ansys (APDL)
- LimitState

Formatting

- L^AT_EX
- Asymptote
- Adobe Creative Suite

Programming

- MATLAB
- Linux/Mac OS X CLI
- Subversion/Git

I am also in the process of learning C++ and have experience of compiling and debugging C/C++ on Linux (CLI) and Mac OS X (Xcode). I feel that I have an **aptitude** for learning new software packages and programming languages. I am constantly developing my knowledge on an ad-hoc basis, for example through the use of software under development from the community repositories in Linux.

Personal Skills and Interests

Practical I constantly challenge myself with personal projects. I have built and maintained my own bikes and, more recently, refurbished an old PC in order to learn linux. I have enjoyed researching the required skills to complete these tasks.

Active I play ice hockey for the University of Sheffield, a sport which demands a high level of team work and physical commitment on and off the ice. This year I have been involved in the running of the club in both the executive committee and the coaching committee.

Independent In 2008 I completed the expedition part of my Duke of Edinburgh Gold Award – a four day hike through the Massif Central of France, starting in the ski resort of Le Mont-Dore and finishing at Volvic.
I have a full UK driving licence, with no endorsements.

References

References are available on request

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