

# JAMES CAMPBELL

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## PERSONAL PROFILE/OBJECTIVE

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I am an exceptional undergraduate mathematics student seeking a one year industrial placement in the fields of mathematics and computer science.

During my first undergraduate year, I was awarded a mathematics scholarship and prize, invited to present my work at an international conference and selected from 160 of my peers to undertake a research internship during the summer break.

## EXPERIENCE

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SUMMER 2014	<b>Research Internship, Cardiff University Department of Mathematics</b> I was employed for the Summer to lead a project developing Game Theoretic algorithms within the open source mathematics package, Sage. Areas of Game Theory included: Normal Form Games, Co-operative Games and Matching Games and the code produced is available at <a href="https://github.com/theref/sage-game-theory">https://github.com/theref/sage-game-theory</a>
SPRING SEMESTER 2014	<b>Development of a Django Web Application</b> During an 11 week assessed activity of my Computing for Mathematics module, I developed a dynamic web application using the Django framework. The application can be viewed at <a href="http://thefightclub.herokuapp.com">http://thefightclub.herokuapp.com</a> and the code is available at <a href="https://github.com/Fight-Club/fightclub">https://github.com/Fight-Club/fightclub</a>
SEPT. 2010 - PRESENT	<b>Referee with the Rugby Football Union</b> I began refereeing rugby union at the age of 15. Within 3 years, I had been <b>promoted</b> from level 15 to level 6 - the <b>highest</b> regional level and only one below the point where I could referee national level games. The experience of <b>taking charge</b> of 30 men (often twice my age) in an aggressive and physical sport has given me confidence in my ability to <b>remain calm in stressful situations</b> .
SEPT. 2009 - JUL. 2013	<b>Young Leader at 1<sup>st</sup> Helsby Scouts</b> I developed communication skills whilst helping to supervise and teach children aged 6 - 10 years. I was regularly assigned to lead small group activities which improved my organisation and leadership skills.

## EDUCATION

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CURRENT	<b>BSc Mathematics, Statistics and Operational Research</b> Cardiff University, Department of Mathematics Expected May 2017
SEPT. 2011 - JUNE. 2013	<b>St. Nicholas Catholic High School</b> A-Levels: Maths - A*, Further Maths - A, Physics - A AS-Levels: Biology - B, Chemistry - B
SEPT. 2006 - JUNE. 2011	<b>St. Nicholas Catholic High School</b> GCSEs: Maths - A*, Additional Maths - A*, Physics - A*, English Language - A*, English Literature - A*, Biology - A*, Chemistry - A*, French - A, History - A, RE - A, Art - B.

## SCHOLARSHIPS AND PRIZES

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SEPT. 2013	Department of Mathematics Scholarship - awarded to the top 10 students who achieved the highest 'A' level grades of that year's intake.
DEC. 2013	Department of Mathematics Prize - awarded for the highest mark in Computing for Mathematics module.
JAN. 2014	Django Weekend Conference - On achieving the highest mark for an individual research project, I was invited to present my work at the UK's first ever Django conference: <a href="https://djangoworkshop.org/event/python-ladders/">https://djangoworkshop.org/event/python-ladders/</a>

## PROGRAMMING SKILLS

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I am proficient in most aspects of computing:

- Operating Systems: Windows, MacOS, Linux (server and client);
- General software: Excel, Word Processing ( $\text{\LaTeX}$  Microsoft Word, Libre office), Presentation (Beamer, Microsoft Powerpoint);
- Programming: Python, Django, Ruby, Git and well evidenced ability to gain proficiency in new languages quickly.

For an overview of my programming portfolio please see my github page: <https://github.com/theref>.

## ACHIEVMENTS AND INTERESTS

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I have been involved in Scouting from the age of 8, playing a **leading role** in the organisation both as member and a leader. Recently, I was appointed a group-wide, adult leader position which will allow me to continue the work I have been doing whenever I am home from University.

I have played Rugby Union from the age of 5, reaching county standard and playing for the Welsh Exiles before injury forced my retirement. This gave me a lot of experience of **working within a team**, both as a **captain** and a member.

At University, I took up the sport of ultimate frisbee. I have been promoted to the second team, represented my university at several tournaments and **elected** to serve as treasurer for the next academic year.

In my spare time I relax by playing the piano, having achieved Grade 5 some years ago. I hold a full, clean UK driving licence.

### FIRST YEAR GRADES

EXAM	CREDIT	%
Analysis I	10	78
Dynamical Systems and Chaos	10	80
Calculus	10	71
Algebra I	10	62
Probability Theory	10	81
Algebra II	10	?
Analysis II	10	?
Elementary Differential Equations	10	?
Statistical Inference	10	?
Elementary Number Theory	10	?
Computing for Mathematics	20	95
	AVERAGE	?