# JAMES CAMPBELL

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## Personal Profile/Objective

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

SUMMER Research Internship, Cardiff University School of Mathematics

2014 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 https://github.com/theref/sage-game-theory

SPRING SEMESTER Development of a Django Web Application

2014 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 http://thefightclub.herokuapp.com and the code is

available at https://github.com/Fight-Club/fightclub

SEPT. 2010 -Referee with the Rugby Football Union

I began refereeing rugby union at the age of 15. Within 3 years, I had been promoted from level 15 to level 6 - the highest **SEPT. 2013** 

regional level and only one below the point where I could referee national level games. The experience of taking charge of 30 men (often twice my age) in an aggressive and physical sport has given me confidence in my ability to remain calm

in stressful situations.

SEPT. 2009 -Young Leader at 1st Helsby Scouts

JUL. 2013 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** 

**CURRENT** BSc Mathematics and its Applications

Cardiff University, Department of Mathematics

Expected May 2017

SEPT. 2011 -St. Nicholas Catholic High School

JUNE. 2013 A-Levels: Maths - A\*, Further Maths - A, Physics - A

AS-Levels: Biology - B, Chemistry - B

SEPT. 2006 -St. Nicholas Catholic High School

JUNE. 2011 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

Department of Mathematics Scholarship - awarded to the top 10 students who achieved the highest 'A' SEPT. 2013

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 Diango 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: https://djangoweekend.org/

event/pythons-ladders/

#### PROGRAMMING SKILLS

I am proficient in most aspects of computing:

- Operating Systems: Windows, MacOS, Linux (server and client);
- General software: Excel, Word Processing (LATEX, Microsoft Word, Libre office), Presentation (Beamer, Microsoft Powerpoint);
- Programming: Python, Django, Ruby, Git, Trac 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

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.

### REFEREES

Dr. Vince(nt) Knight School of Mathematics Cardiff University Senghennydd Road CARDIFF, Wales, UK. CF24 4AG knightva@cf.ac.uk Prof. Nikolai Leonenko School of Mathematics Cardiff University Senghennydd Road CARDIFF, Wales, UK. CF24 4AG LeonenkoN@cardiff.ac.uk

## 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	72
Analysis II	10	71
Elementry Differential Equations	10	79
Statistical Inference	10	58
Elementry Number Theory	10	72
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Computing for Mathematics	20	96
	Average	76.3