

Ross Lagerwall

Tertiary Education

- 2012–2013 **MPhil in Advanced Computer Science**, *University of Cambridge*, England.
Degree awarded with *Distinction*
Aggregate: 83.3%
Thesis title: *Memory-mapped Socket Buffers for Zero-copy Networking*
- 2011 **BSc Honours Computer Science**, *University of KwaZulu-Natal*, South Africa.
Degree awarded *Summa Cum Laude*
Aggregate: 93.5%
1st class pass for all subjects
Thesis title: *Plant Classification using Leaf Recognition*
- 2008–2010 **BSc Computer Science**, *University of KwaZulu-Natal*, South Africa.
Degree awarded *Summa Cum Laude*
Aggregate: 95.5%
1st class pass for all subjects

Secondary Education

Matriculated in 2007. All subjects were completed on higher grade.

| | | | | | |
|-----|------------------|-----|------------------------------------|-----|----------------------------------|
| 98% | Physical Science | 81% | Afrikaans 2 nd Language | 88% | Technika Electronics |
| 93% | Mathematics | 95% | Computer Studies | 69% | English 1 st Language |

Experience

- 2014– **Software Engineer**, *Citrix Systems*, Cambridge, United Kingdom.
Developed XenServer open source server virtualization software.
Roles included performance testing, analysis and improvements, scalability improvements, and upgrading the underlying distribution on which the appliance is built. Technologies used include C, Python, Git and Mercurial.
- 2012 **Junior Developer**, *ThoroughTec*, Durban, South Africa.
Developed mining and vehicle simulations in C++.
Projects included implementing vehicle logic, dragline dynamics, and user interface changes. Technologies used include Microsoft Visual C++, C# and Perforce.
- 2011 Contributed significantly to the Python programming language and became a Python core developer.
- 2010– **Software Developer**, *Numberwise*, Durban, South Africa.
Developed an interactive web-based maths program called Numberwise used by over 20 000 users in 30 different countries.
I developed a client program in Visual Basic which connects to a server written in PHP and MySQL.
- 2010 Wrote software for Professor R. Arnab from the University of Botswana to aid statistical research into populations and demographics.

2008–2009 Vacation work at Altech UEC for ten weeks. Projects included writing software to aid developers in bug reporting, developing software to perform automated hardware testing and writing software to remotely control a set top box.

Technical Skills

I am fluent in C, C++, Python and Java. I have a good knowledge of PHP and JavaScript as well as experience with database programming and SQL.

Other experience includes using various markup languages (HTML, CSS, \LaTeX and reStructuredText) and version control systems (Git, Mercurial, Subversion, and Perforce).

Problem solving interests me as well as theoretical Computer Science and the practice of programming (especially languages, operating systems and network servers).

I use Linux extensively and am interested in Linux programming and open source software. I actively participate in the open source community.

Publications

2011 Lagerwall, R.D., Viriri, S. Plant Classification using Leaf Recognition. *Proceedings of the 22nd Annual Symposium of the Pattern Recognition Association of South Africa*, 22-25 November 2011, Johannesburg, South Africa. pp 91–95.

Prizes and Awards

2011 Won 2CANA programming competition.

2011 Awarded a Certificate of Merit for coming first or second in all subjects in BSc Honours Computer Science.

2011 Member of the 1st ranked team for UKZN in the Standard Bank IT Challenge that competed in the national finals.

2008–2010 Received a Dean's Commendation for academic performance in each semester.

2008–2010 Awarded a Certificate of Merit for coming first or second in 23 out of 24 subjects in BSc Computer Science.

Scholarships

2012–2013 Wolfson Cambridge Scholarship

2012–2013 Cambridge Commonwealth Trust Scholarship

2012–2013 Skye Foundation Scholarship

2011 Zac Yacoob Scholarship – awarded to the top honours student in the University.

2011 NRF Innovations Scholarship

2011 Postgraduate scholarship

2009–2010 Prestige Scholarship – awarded to the third-highest ranked undergraduate student in the University.

2008–2010 Entrant Merit Scholarship