

William Kenyon

CONTACT INFORMATION

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EDUCATION

Cambridge University, Cambridgeshire, UK

B.A., Computer Science Tripos

Part II

2012

- Project Work (*Ongoing*): Dissertation in Artificial Intelligence, *A Monte Carlo Tree Search Library in Haskell* is currently in the early implementation stages.

Part IB

2011

- Computer Science Paper III (2.2): Algorithms, C/C++, Software Engineering, Prolog, Java.
- Computer Science Paper IV (2.2): Architecture, Networking, Concurrent & Distributed Sys.
- Computer Science Paper V (2.2): Artificial Intelligence, Graphics, Databases, Security.
- Computer Science Paper VI (2.1): Computation Theory, Complexity Theory, Semantics, Logic and Proof.
- Project Work (*Pass*): Built SMS hub for radio DJs in third world countries. Worked in team of five, in which everyone wrote code managed under version control system. Project was for a real client and bi-weekly progress meetings were made. Personally delivered presentation of project to audience of academics, peers and local business people who then voted our project second best out of the fifteen groups.
- Hardware Labs (*Pass*): Implemented *Pong* and *Game of Life* on an [Altera](#) Programmable Logic Device.

Part IA

2010

- Computer Science Paper I (2.2): Functional Programming, Algorithms, Logic.
- Computer Science Paper II (2.1): Systems, Digital Electronics, Logic II.
- Mathematics (2.1): Probability, Calculus, Fourier Series, Matrices.
- Physics (2.2): Mechanics, Electromagnetism, Relativity, Quantum Mechanics.
- Hardware Labs (*Pass*): Various projects with with low level electronics (transistors/gates).
- Java Labs (*Pass*): Graphical *Game of Life* viewer with numerous bells and whistles.
- Functional Programming Labs (*Pass*): Several toy functional program puzzles and two more substantial exercises: a program which finds the shortest path in a network and a program which draws any region of the *Mandelbrot Set*.

Queen Elizabeth School, Kirkby Lonsdale, Cumbria, UK

GCE Computing: *A* (598/600); Physics: *A*; Maths: *A*; Further Maths: *A*.

2009

GCE Electronics: *A* (full marks in 5/6 modules)

2008

GCSE *9A**; *4A*.

2007

RELATED EMPLOYMENT

RealVNC, Cambridgeshire, UK

Wanted to experience working in a commercial rather than academic environment **Summer 2011**

- Ported *VNC Viewer* to the *Google Chrome Native Client (NaCl)* platform.
- Learnt C/C++ to a much higher level (only basics taught in Computer Science Tripos).
- Rewrote large chunks of the (UNIX specific) code to run in *NaCl* sandbox.
- Replaced use of network sockets with a Javascript + Websockets tunnel.
- Rewrote concurrency control to use pthreads rather than the UNIX select function.
- Built web based frontend for viewing remote screen and controlling mouse and keyboard.
- It was working, with code thoroughly documented and commented by the time I left.
- A full time employee was brought on after I left to turn my project into a releasable product.

RELATED
EMPLOYMENT

Lancaster University, Lancashire, UK

Invited back to work with same research group as previous summer

Summer 2010

- Continued projects I had started in the previous summer using the documentation I had written.
- Installed the mesh boxes we had been working on all summer in a village and trained community volunteers to use the system and help others. Monitored usage using my monitoring software.
- Built user support portal and request system & release pattern for rolling out set top boxes.
- Worked on live streaming technologies over BitTorrent. ([p2pnext](#)).

Summer work after secondary school with research group

Summer 2009

- Gained experience of working in a team, working to deadlines, attending project meetings.
- Experience of documenting thoroughly and producing code consistent with rest of team.
- Built and maintained a test mesh network which was physically installed on coat stands in office.
- Developed log system and web interface to inspect the status of the boxes on the mesh network.
- Developed remote system using PXE to reflash bricked boxes.

British Energy (now EDF Energy), Heysham II Nuclear Power Station, Lancashire, UK

Work Experience

Summer 2008

- Gained understanding of how computer systems are used to monitor and control a nuclear reactor.
- Wrote some code on the development system (identical hardware to the computer system controlling the reactor).

OTHER
EMPLOYMENT

Queen Elizabeth School, Kirkby Lonsdale, Cumbria, UK

Cleaned as a sixth form student after school

2008 - 2009

- Well paid job for age.
- In charge of all rooms in Art department, took pride in the cleanliness of my building.

Bridge House Farm Tearooms, Wray, Lancaster, Lancashire, UK

Worked up through ranks at local tearooms

2005 - 2008

- Initially employed to wash dishes in the kitchen.
- Then later preparing food, serving customers from behind the till, serving food at tables.
- Learnt how to look professional and be courteous towards customers.

TECHNICAL
SKILLS

Programming Languages

- Fluent: C, C++, Haskell, Java, JavaScript, ML, PHP, UNIX shell scripting, SQL.
- Good Knowledge: Lua, Matlab, Perl, Prolog, Python, SystemVerilog.

Tools

- Computer Applications: TeX, vim, common productivity suites for linux/windows.
- Operating Systems: Microsoft Windows, Linux.
- Discrete Maths, Knowledge of low level hardware.

EXTRA
CURRICULAR

Sport

- Currently rowing with [Cambridge University Lightweight Rowing Club](#).
- Cycle between Cambridge and my home in the lake district at the start and end of each term. I carry the things I need in a backpack and four saddle bags.
- Ski weekly at a local dry ski slope and participate in [Eastern Region](#) races.
- Sail a *Laser I* dinghy competitively in weekly club races at a local sailing club.

Arts

- Sing in [Emmanuel College Chorus](#), performing in frequent concerts / charity carols on street.
- Perform in [Cambridge University Gilbert and Sullivan Society](#) operettas.
- Dance with the [Cambridge Dancers Club](#).

REFERENCES

Education

- [Neil Dodgson \(nad10@cam.ac.uk\)](mailto:nad10@cam.ac.uk)

Employment

- [Jason Morley \(jason.morley@realvnc.com\)](mailto:jason.morley@realvnc.com)
- [Nicholas Race \(n.race@lancaster.ac.uk\)](mailto:n.race@lancaster.ac.uk), +441524510123;
- [Neil Read \(neal.read@british-energy.com\)](mailto:neal.read@british-energy.com).