

## Andrew Steven Winter

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### Key Skills

- ◆ Extensive software development experience.
  - ◆ Excellent written and formal presentation skills.
  - ◆ Problem solving and logical thinking; highly numerate.
  - ◆ Able to work efficiently under pressure.
  - ◆ Project management and team leadership.
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### Education

Oct 99 – Jun 02 **Ph.D. Computer Science** *University of Wales, Swansea*  
Viva: Dec 02

Introduced several techniques to volume graphics including the *field-based modelling and rendering* concept, *spatial transfer functions* and *projective texture mapping*. Introduced the world's first volume graphics API and released a complete implementation to the open source community; this implementation is regarded by many as the highest quality volume renderer in existence. Gained hands-on experience with many volume visualization concepts including reconstruction, normal estimation, transfer function generation, surface extraction, rendering, segmentation, registration and more.

- Awarded an EPSRC research studentship.
- Published several journal papers and book chapters.

Oct 96 – Jun 99 **B.Sc. (Hons) Computer Science (First Class)** *University of Wales, Swansea*

Course modules included (among others):

Graphics (x2)	Scientific Modelling	Functional Programming
Compilers	Database Systems	Operating Systems
AI (x2)	Computability Theory	Computer Networks
Mathematics (x4)	Algorithms (x3)	Software Development (x2)

Awarded the Addison-Wesley Prize for outstanding achievement.

Sep 93 – Jun 96 **A-Level Computing (A)** *Gorseinon College, Swansea*  
and  
**BTEC National Diploma** in Computer Science (**Distinction**)

Awarded a prize for excellence at the annual prize-giving ceremony.

Jun 93 **GCSE** (8 passes, grades A-C) *Amman Valley Comprehensive School*

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**Employment Full-Time**

Mar 04 – Now *Ubiquity Software, Cardiff, UK* Java Developer

Currently developing a SIP (Session Initiation Protocol) Application Server in Java for use by many established customers including AT&T, Nokia and Siemens. Responsibilities include writing software requirements, design documents and test plans, as well as implementation and testing. Daily exposure to Java, Maven, Bugzilla, CVS, Together and InstallAnywhere. Have also contributed ideas to the Architecture team and helped new starters settle in. Experienced the full project lifecycle from requirements to bug fixing.

Jan 03 – Mar 04 *3Dlabs, Egham, UK* Direct3D Driver Developer

Developed a Direct3D 9.0 driver for Creative's Wildcat Realizm chip as part of an international team. The role included developing and debugging the driver in C, writing an HLSL compiler and driver testing tools in C++, issuing spec-change requests upon identifying hardware deficiencies, code reviews and peer support. Also created the team's intranet site during out-of-office hours. Daily exposure to Visual C++, WinDbg, MS SourceSafe, assembler and kernel mode development in Windows XP. All code was peer-reviewed, documented and thoroughly tested against a chip simulator.

Jun 02 – Dec 02 *QinetiQ plc, Farnborough, UK* Programme Developer

Implemented a helicopter flight simulator for the Ministry of Defence (MoD) as part of a small team. The simulator enabled new technologies to be prototyped and evaluated by MoD pilots before being installed in experimental aircraft. Responsibilities included hands-on development of the simulator and methodology design for flight trials. Although interesting, the job did not require the skills developed at university and was not as described at interview.

**Part-Time**

Oct 99 – Jun 02 *University of Wales, Swansea* Student Demonstrator

Duties included assessing coursework, invigilating (proctoring) exams, supervising undergraduate programming sessions and conducting problem classes. Personal tuition in a range of computer science disciplines was given to B.Sc. and M.Sc. students on a one-to-one basis.

Feb 96 – Oct 96 *ITS (Wales), Llandarcy* Programmer

Developed software for the Welsh Health Authority using Delphi and SQL. Working as a two-man team (then later as an individual), the job included software development, database design and implementation, collaboration with the customer, on-site support, system installation and training. This work period began as a three-week college placement and continued at the company's request.

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**Software**

O/S: Windows (3.1, 9x, 2K, XP), Linux, Solaris.

Languages: C, C++, Java, shell script, XML, HTML, SQL, Mathematica, Assembler, PHP, Pascal, Delphi, COBOL, BASIC, Prolog.

APIs: Windows, Direct3D, *vlib* (created), OpenGL.

Applications: MS Office (advanced user), Internet, LaTeX, several version control systems including CVS, debuggers, graphics packages plus many others.

New environments, APIs, packages, debugging techniques, programming languages and coding styles can be learned quickly and applied effectively in solving real-world problems.

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**Personal**

Date of Birth 10 May 1977.  
Marital Status Single.  
Nationality British.  
Other Non-smoker. Full UK driving license. Car owner. Homeowner.

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**Interests**

- ◆ Computer programming, web development, volume graphics.
  - ◆ Travel (especially UK and America).
  - ◆ Crosswords, logic puzzles and pub quizzes.
  - ◆ Sports including squash, swimming and snooker.
  - ◆ Cinema, TV and video.
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**Publications**

For an up-to-date list, please visit [www.andrewwinter.com](http://www.andrewwinter.com).

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References available on request.