

Curriculum Vitae

Personal Details

Matthew Caldwell

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British/Australian

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Availability: UNAVAILABLE

Summary

NB: I am currently undertaking a four year full-time MRes/PhD course in mathematical and computational modelling of biological systems and, consequently, am not available for employment. Cold calls regarding "exciting opportunities" will not be well-received.

I am a versatile and experienced coder and object-oriented program designer with experience of a wide variety of platforms and environments for both development and deployment. The projects I've been responsible for have ranged from small-scale internal tools designed for a single specific purpose to substantial client-server systems, and from generic technologies intended to support a wide range of different applications to consumer-oriented boxed software.

I have used most of the major programming languages, and many more obscure ones, including several I've written myself for particular projects; my preferred languages for general use are **Java** (7 years), **C** (10 years), **C++** (8 years) and **Perl** (2 years). As well as coding for work, I also program recreationally, a recent example being Pollen (<http://walkytalky.net/pollen/>), a particle-based screensaver for Mac OSX (Objective C/Cocoa).

I have worked in senior/lead roles in small teams for many years, often with responsibility for broader technical matters as well.

Employment History

APT

32 Saffron Hill
London EC1N 8FH

Quantitative Developer

Aug 2004 - Sep 2006

A broad range of work on the company's statistically-based portfolio risk and performance analysis products, on both server and client sides. I was responsible for a de novo *Application Service Provider* system for hosted delivery of portfolio analytics and also contributed to overall software design and direction.

The ASP system comprised XML communication protocols, a Perl client controlling large-volume processing via a core C++ calculations server, a mediating SQL database for inputs, control information and results, and a PHP presentation layer for report delivery over the Web.

HiScore TV

34b Stoneleigh Street
London W11 4DU

Technical Architect

Jan 2001 - Apr 2004

Working on the design and implementation of games for interactive TV set-top boxes and other consumer delivery platforms. Leading teams varying from 3 to 8 people, I was responsible for the core coding and program architecture of most projects, as well as day to day technical management and overall technology strategy.

Our most substantial project was a portable virtual machine system for running narrative games on a variety of platforms. An extensive toolchain was developed in Java, along with runtime implementations in Java, C, JavaScript and Flash ActionScript.

A similar, but much more constrained, system was developed for creating simple multiple-choice adventures for Flash MX web deployment, and this was used to build games for the BBC and Yahoo Personals.

In addition, there were various other projects for OpenTV and Liberate STBs, J2ME mobile phones, PocketPC etc.

HotGen Studios

NLA Tower
Addiscombe Road
Croydon CR0 0XT

Lead Developer

Jan 1999 - Sept 2000

Developed PC version of children's card game *Uno* for US toy giant Mattel, using a C++/DirectX front-end and a Java server, glued together with COM. Also compilers and other tools for building the asset files used by the game.

Previously, continued work on the BTP game server (see below; BTP was bought by HotGen) developing various demos including a simple isometric-view strategy game and physics code for a bowls game for the BBC.

BTP

102-108 Clifton Street
London EC2A

Lead Developer

Mar 1997 - Jan 1999

Overseeing development of a massively-multiplayer server-based internet role-playing game using Java for both client and server, with a generic server architecture adaptable to many different game styles.

Included developing custom network protocols; cryptography; compilers and building tools for the internal scripting language; tools to automatically generate HTML documentation; many visual components.

Myelin

172a Arlington Road
London NW1

Senior Developer

Nov 1995 - Jan 1997

Wide range of development work on music-oriented multimedia and network games. Also general maintenance, R&D, network administration etc.

Specific projects included:

PopShop - a CD-ROM about London fashion and nightlife for Japanese publisher Itochu (English & Japanese language versions).

Agent Command - a set of protocols and implementation framework in C++ for agent-based network gaming (TCP/IP, WinSock).

Development of a general-purpose OO framework for Director applications including unified event-handling, async animation and other periodic processing, encapsulated QTVR, etc.

Trip Media

7 Leicester Place
London WC2

Freelance Programmer

Dec 1995 - Apr 1996

Development of modules for the *Virtual Nightclub* project, including a real-time 3D inventory facility.

First Information Group

197 Knightsbridge
London SW7

Lead Programmer

Mar 1995 - Sept 1995

Program design and implementation of childrens' CD-ROM game *Stringalongs* for publisher Reed Interactive.

Contract Programmer

Nov 1995 - Dec 1995

Development of in-house tools (standalone applications and plug-in for Adobe Premiere) for handling multi-track Quicktime movie files.

Consultant

June 1996

Consultancy on localization for *Stringalongs*.

Computer & Design Consultant

Dec 1991 - Mar 1995

Wide variety of work including:

Designing, coding and supporting mail-order and book-distribution systems (invoicing, order-processing, stock control, accounting) using Borland Paradox and C for MS-DOS.

Designing and editing *Prowler Press Gold* magazine (Nov 1992 - Nov 1993) and assorted other publications.

Prowler Press

3 Broadbent Close
London N6

Education

CoMPLEX

University College London

Wolfson House
Stephenson Way
London NW1

Queen Mary & Westfield College

University of London

Mile End Road
London E1

London College of Printing

Elephant & Castle
London SE1

Barnet College

Barnet
Herts EN5

Fortismere School

Muswell Hill
London N10

MRes/PhD Modelling Biological Complexity

Sept 2006 - present

MSc Information Technology

Sept 1991 - Sept 1992

Grade: Distinction

Major project on in-betweening vector graphics for computer animation, using C in an X/Windows environment under A/UX.

BA (Hons) Film & Video

Sept 1986 - June 1989

Grade: 2.1

Awarded a commendation for my dissertation.

Foundation Course in Art & Design

Sept 1985 - June 1986

GCE A Levels

Sept 1983 - June 1985

Maths (A), Further Maths (A), Physics (A), Art (E).

References

Steve Cooke

Managing Director
HiScore TV
34b Stoneleigh Street
London W11 4DU

Professor Alan Ware

Worcester College
Oxford OX1 2HB

Interests

I enjoy various physical activities, including cycling, dancing, trampolining, climbing and rollerblading, and also attend classes in circus skills such as acrobatic tumbling and flying trapeze.

I love going to the movies, the theatre and contemporary dance performances, and I like music, reading, writing and eating out.