

# ROWAN MEDHURST

Founder / CEO - Futureave UK

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## Skills

- ✓ 30 Years Programming Experience
- ✓ Analytical And An Excellent Problem Solver
- ✓ Good Math – I Was Placed 52 Out Of 80000 In The 1992 UK Junior Maths Olympiad
- ✓ Microsoft \* Borland \* C/C++ \* STL \* VCL \* .NET
- ✓ DirectSound \* Direct3D \* DirectShow \* OpenGL \* GLSL
- ✓ Windows Application Development
- ✓ Algorithm Research And Development
- ✓ Image Processing
- ✓ Graphics Programming
- ✓ GUI Design
- ✓ Code Conversion And Optimization
- ✓ HTML5 \* CSS3 \* PHP \* MySQL
- ✓ GNU Image Manipulation Program
- ✓ Upgrades / PC Builds

## **Employment**

### **Founder and CEO - Futurerave UK Limited**

June 2018 to present

I am the Founder, CEO, and Development Lead of Futurerave UK Limited. We provide graphics and VJ software for hard dance and techno/house. My development duties include algorithm dev for the audio analysis engine. C++ development using VS2019 / BDS2006. GLSL shader programming.

### **C++ Games Programmer – Infusion Games**

July 2004 – Sep 2004

Working alongside the Technical Director my tasks were focused on the development of physics engine code for an action/strategy title for the Nintendo GameCube, using the ODE (Open Dynamics Engine).

Specific tasks included integration of ODE with the existing game engine, integration of the existing engine's bezier terrain system with ODE's collision detection, tuning of vehicle dynamics, addition of debug functionality, and code refactoring.

### **Freelance C++/DirectX Programmer**

July 2000 – July 2004

I have designed and developed interactive architectural visualisation software for several building projects using C++ and Direct3D.

I have also developed an interactive 3D environment to specification for a videoconferencing system, again using C++ and Direct3D. This included handling live video streams in a networked environment, use of DirectInput, and the development of an encryption/decryption tool to protect sensitive resources such as textures and meshes.

## Employment

### **C/C++ Programmer – Mark Roberts Motion Control**

May 2003 – Sep 2003

Development, testing and maintenance of the company's Flair Motion Control Software which was used to drive their Academy Award winning 'motion control' mechanised camera rigs.

The work included the use of MFC to modify and extend the program's user interface, and also the use of a mixture of C and C++ to develop and maintain the back end hardware code. Included comms programming via RS232. I also used OpenGL to reimplement and extend the program's 2D and 3D graphing system, and also integrated a prototype computer vision tracking system - produced by 4D Technology Systems, also developed by myself - to enable automated camera tracking. This allowed a film camera to automatically follow a target (such as a news reporter) in cases where the use of a cameraman would be impractical.

### **Lead Programmer – 4D Technology Systems**

July 2002 – March 2003

Working alongside the Technical Director in a R&D role, my tasks were focused on creating a *prototype vision system* for an innovative wireless game controller.

The project was sponsored by the Department of Trade and Industry, being a winner of the UK SMART Award for Innovation 2002.

The work was wide ranging, including research and implementation of various machine vision/image processing techniques, use of DirectShow to handle live video streams from two cameras simultaneously, use of Direct3D and accompanying physics code to implement a 3D demonstration environment (in which our prototype could be flown around by moving and tilting the device), and creation of tools and testbed programs.

## **Employment**

### **C/C++ Games Programmer – Broadsword Interactive**

July 2001 – March 2002

This role involved the design and development of games and game tools for Pocket-PC and Gameboy Advance formats, using C, C++ and Direct3D. I worked in a team of three programmers.

I spent six months working on a driving game for the Gameboy Advance and was involved in various aspects of the game including the physics, the AI, the graphics and the front end. I also helped convert a platform/puzzle game from PC (DirectX) to Pocket-PC.

I also developed several game tools (Windows apps) including a map editor, image and palette manipulation tools and a 3D terrain renderer which was used to visualise terrains and generate 2D shadow maps.

### **Junior CAD Draughtsman – Tarmac Precast Concrete**

July 1997 – Feb 1999

Involved the production of AutoCAD drawings for the manufacture of concrete units. I also developed a computer program which generated AutoCAD scripts, to enable instantaneous creation of AutoCAD drawings of concrete box culverts based on certain parameters. The system was developed using Microsoft QuickBASIC. My tasks also included the use of Microsoft Word and Excel, drawing issue control, and general admin tasks.

**Qualification** City & Guilds 2D AutoCAD

A levels

Maths A

General Studies C

GCSE

Maths A

Physics A

Chemistry A

Biology A

English Language A

French A

English Literature B

Business Studies B

CDT B

Religious Studies B

Geography C

**Hobbies** Hillwalking, Nature  
Music Production