



I offer more than 35 years' experience in hardware and software design and development. I have specific experience in Javascript, PHP, C, C+ and structured Basics; ARM, 80x86, 68000, PDP11, 32000, 6812, 6809, 6502 and Z80 machine code; and of Windows, Linux/Unix, MSDOS, RISC OS, CP/M and BBC operating systems.

I am also skilled in documentation, proofreading and artworking, putting together technical and user manuals, process documentation, booklets, leaflets and fliers; and submissions to public enquiries.

I have used these skills in writing low-level device drivers, handlers and kernels, including serial and networking programming with MIDI, RS232, USB, ACIAs, ADLCs and UARTs, keyboard and printer drivers, and disk access drivers and filing systems with FDCs and IDE/ATA devices. I am also skilled at reviewing, refactoring and rewriting existing code, removing redundancies and inefficiencies, and rewriting to create a clearer code structure to pass on to other maintainers.

I have ported the small "Tube" coprocessor kernel to various CPUs and with various I/O hardware, and the 6809, 6812, 6502 and PDP11 versions have been picked up and used in hobbyist projects. I seek out and collate versions of BBC BASIC ported to different platforms, and have myself ported it to the ZX Spectrum, PDP11 and Commodore 64. I have contributed to the ARM and Windows versions, and to the open source Brandy Basic Napoleon fork and Matrix fork, and the BeebEm emulator. In parallel with the PDP11 and 6809/6812 versions I have developed an assembler/disassembler/emulator suite.

Many examples of my work are listed in my portfolio at mdfs.net/portfolio and github.com/jgharston.

MOST RECENT EMPLOYMENT

August 2021 to October 2021: NHS Rotherham Doncaster & South Humber CCG

October 2019 to March 2020, October 2020 to March 2021: NHS Sheffield CCG

IT Field Engineer. Worked as a contractor in Yorkshire GP Practices rolling out Windows 10 and related applications, followed by rolling out equipment to support the Covid-19 vaccination programme. This included varied custom and bespoke specialist medical systems software, including SystemOne and EMIS clinical support systems, Lexacom dictation/transcription systems, CardioView, WatchBP, Spirometry and other clinical systems, and Active Directory user administration and asset management.

July 2021 to August 2021: Cover for IT Support, Simpson Construction, York

July 2020 to September 2020: Courier

April 2014 to 2019: contractor for Cerco IT Services and VSL IT Support

IT Field Engineer. Worked as a contractor through agencies on various projects in a small team and individually, rolling out new Windows 7 hardware across various remote sites, installing client applications, transferring data between systems, providing on-site user assistance to users migrating to the Windows 7 environment, Office 2014, Office 365 and other applications.

Work in West & South Yorkshire GP Practices included varied custom and bespoke specialist medical systems software, including setting up SystemOne and EMIS clinical support systems and Lexacom dictation/transcription systems. Work for Airedale NHS included building and collating asset lists prior to asset replacement and user migration. Work on Balfour Beatty and Carillion Construction sites included security clearance for nuclear sites. Sodexo and Compass catering and facilities management included working in retail premises and secure military sites. This also included work on DWP and HMRC sites.

HIGHER EDUCATION

University of Stirling, Scotland. September 1987 to September 1990. Computing Science BSc Major, taking Environmental Science and Japanese Language as subsidiaries.

Sheffield College, Loxley Centre. September 1994 to May 1996 City & Guilds Electrical Installation Part 1 and 2.

Chartered Institute of Environmental Health. July 1996 Health and Safety Certificate.

PERSONAL BACKGROUND

- Have written computer programs and designed and built computer hardware from early teens.
- Am interested in cartography, and have technical and cartographic drawing skills, and have drawn many of my own maps and plans, including the ones listed below.
- Have traced my family in Sheffield and Whitby back through 12 generations to about 1700 and across more than 15 families, identifying over 1100 members. Have been transcribing Whitby census and residents documents to make them electronically available.
- While at University, co-wrote, produced and presented a breakfast-time news and current affairs radio programme.
- Was a school governor for 12 years, chairing the Buildings & Site committee at Myers Grove School, my former school.
- Formerly a member of Sheffield City Council, currently a member of Whitby Town Council.
- Qualified electrician, have had Health & Safety training and property management experience.
- Member of the Whitby Literary and Philosophical Society.
- Conversational fluency in Japanese, French and German.

PUBLICATIONS

- Submission to the Yorkshire Parliamentary Boundary Review, 2021.
- Comments on the Scarborough Borough Council Ward Review, 2018.
- Submission to the Scarborough Borough Council Ward Review, 2017.
- Submission to the Yorkshire Parliamentary Boundary Review, 2016.
- [Sheffield Ward Boundary Review Submission](#), 2014.
- [Submission to the Sheffield Parliamentary Boundary Review](#), 2011.
- [Rockall and Hasselwood Rock](#), map, 2008.
- [Planning Appeal supporting refusal of listed building consent, 163 Church Street, Whitby](#), May 2008.
- 1er mai 1707: Qui s'en souvient?, Genista Informations, June 2007.
- [Submission to the Local Enquiry on the Sheffield Parliamentary Boundary Review](#), 2005.
- [Sheffield Parliamentary Boundary Review Submission](#), 2004.
- [Comments on the Sheffield Ward Boundary Review](#), 2003.
- [Sheffield Ward Boundary Review Submission](#), 2002.
- [Genealogy of the Old Testament](#), 1995.
- [HADFS Reference Manual](#), 1992, 1994.
- [Life in the Fast Lane \(Game of Life\)](#), Acorn User, January 1992.
- [Climb aboard the Carousel \(GetPages\)](#), Micro User., September 1991.
- [Suss out the Symbols \(VLIST\)](#), Micro User, July 1990.
- [Program Lister \(PRLIST\)](#), Micro User, June 1990.
- [Inside Story \(MDUMP\)](#), Micro User, September 1989.
- [The Yards of Whitby](#), map, 1989.
- [The Treaty of Union of the Kingdoms of Scotland and England](#), 1988.

CITATIONS

- [Copy Protection in Jet Set Willy: developing a methodology for retrogame archaeology](#), Aycock & Reinhard, 2018.
- [A History of Whitby](#), Andrew White, 1993.

SUPPLEMENTARY INFORMATION

January to July 2013, Adecco/Highlander, Sheffield

IT Support Engineer. Working in a small team across Sheffield City Council's sites performing organisation-wide software and hardware refresh updating all systems from Windows XP to run Windows 7. Involved replacing hardware that could not support Windows 7, and installing Windows 7 on systems with adequate hardware, with access to user data preserved; reinstalling and upgrading diverse application suites, across an installed hardware base of about 2,000 desktops, laptops and tablets.

August to November 2011, Tribal, Sheffield

Tester. Pre-release functionality testing of two major public sector web applications, ensuring consistency of functionality and presentation across a range of browsers and versions. Working within a small team reporting and documenting issues and retesting updates, writing and updating step-wise test scripts and summaries, regression testing new releases, and end-to-end shakedown testing to document areas for future development, coordinating with developer and client teams.

May 1999 to May 2010

Elected Member of [Sheffield City Council](#) for Walkley Ward

Lead member of Environmental Performance Working Party auditing council environmental policies and systems, developing and promoting environmental policies. Member of the Licensing Board, deciding on applications for alcohol premises, hot food, street trading, gaming facilities, sports stadiums, taxi driver and vehicle licenses. Member of the Schools Admissions Board, determining entrance to schools, school transfers and supported travel applications. Member of Planning Board determining planning applications.

Party membership secretary and city-wide Data Officer, maintained party membership and electoral databases, entered, analysed and used data for targeted and untargeted mailings, organised and mapped optimal delivery rounds. Ran the party print shop with high-speed high-volume printers, folding and stuffing machines, coordinated with suppliers and external print companies. Set up and ensured correct operation of server systems, on per-user and shared basis.

July 1996 to January 1997

Channel 5 Broadcasting

Television Reception Engineer. Retuning and testing video equipment as part of the Channel 5 retuning project. This involved working in people's homes ensuring that the new transmissions would not interfere with existing equipment.

August 1994 to October 1994

Chez LaLou, SHEFFIELD

Dish Washer. Washing crockery, cutlery, cooking pots and equipment in a busy restaurant.

March 1994 to April 1994

Owain F Carter Information Services, STIRLING

Programmer. Consultant to debug a WordPerfect file-handling enhancement program. Reconfiguring a PC system to use the Cyrillic character set to BS2979, optimising memory-management and disk caching under DOS and Windows, and installing the hardware and software for a communications link.

November 1993 to December 1993

IT Department, Royal Hallamshire Hospital, SHEFFIELD

Programmer. Rewriting medical information systems designed by medical students with little computer knowledge; and rewriting systems to use Windows from Visual Basic.

July 1992 to July 1993

A FE Computer Services (Acorn Far East), HONG KONG

Network Systems Manager/In-house Technician. Responsibilities included installing, customising and maintaining software, and installing and maintaining hardware. Managing a mixed Acorn UNIX Ethernet and Econet network of RISC OS and PC computers, liaising with the English schools in Hong Kong and installing and teaching staff about new software and helping them with problems, and coordinating service and maintenance requests.

June 1992 to March 1993 (part time)

May 1991 to June 1992 (full-time)

Tokyo Kyohei Gakuen, HONG KONG

Maths, Science and English TEFL Teacher. Teaching 'O' level Mathematics and Science to mainly Japanese and some Chinese secondary school students. Teaching Geography and French, and conversational English to adults with a wide range of abilities.

January 1991 to April 1991

Watford Electronics, WATFORD

Technician. Responsible for taking telephone enquiries and orders, doing minor computer repairs, and dealing with mail returns of microcomputers and peripherals.

September 1990

Dept. of Sociology and Social Policy, University of Stirling, STIRLING

Computing Consultant. Responsible for the installation of software for an RISC OS Network system, installing and setting up programs, and preparing a connection to the campus Ethernet system to connect to JANET; Beta testing of pre-release software for Unix workstations.

June 1988 to August 1988

Camp Beaumont, Albrighton, SHROPSHIRE

Computing Activity Instructor. Teaching children in the 5 to 16 year range how to use various computer applications including word processors, databases, spreadsheets and graphics packages. Assisting 14 to 18 year olds in programming activities; looking after children of foreign nationalities and some informal experience of TEFL teaching.

June to Aug 1987, 1986, 1985

Royal Hallamshire Hospital, Medical Physics Dept., SHEFFIELD

Technician. Designing and building, and writing control programs for, electronic computer hardware for sensing medical data.