John Lawrence Aspden

Contract Programmer (Assembler, Embedded C, C++, Java, Python, Lisp, Scheme)
Cambridge, England

£45/hour

Will negotiate fixed price contracts.

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I'm looking for contract programming work. I like challenges. I have a degree in
mathematics from the University of Cambridge. I'm also interested in Computer
Science.

Commercial Contracts

2006 Brain Mapping Unit, University of Cambridge
Python, C, SWIG, Signal Processing (wavelets, Hurst exponent), MATLAB, Octave

I wrote software to calculate statistics on the output of a brain scanner. The
initial prototyping and tests were in python for speed of development, and then I
translated the main program into a C library for ease of incorporation into their
existing software, whilst using SWIG to keep the original unit test framework.

2005 Sepura
Embedded C, Python, make

I solved some mysterious bugs in a project to split DSP code across several code
pages, and then automated the build process and dependency generation.

2005 Sepura
Frontpage, Subversion, CVS

I debugged, modified and version controlled a browser-based error tracking/change
control system.

2005 Sepura
Visual C++, Windows Comms, Unicode, CJK fonts, LGPL

I converted an ancient program to use Windows Comms and work with Chinese, Korean
and Japanese scripts.

2004 Alphamosaic
Assembler, Vector Processor, VideoCore, C, WMV9, Video Codecs

I ported the Microsoft WMV9 Codec to run on an embedded graphics chip.

2003 Sepura
Embedded C, Assembler, AVR, Mega128, Codevision, High Speed Serial Comms, Device
Drivers, Delphi

I wrote the software for an AVR chip embedded in a dashboard mounted police radio
console, as well as a PC test harness in Delphi. Included writing drivers for a
900kb serial link over a 10 metre cable (lots of fun with oscilloscopes!).

2001 Simoco Digital Systems
ClearCase, HTML

I evaluated the ClearCase version control system, wrote recommendations for its use and gave some training.

2001 Simoco Digital Systems
UI Design, Toolbook Instructor

Having been engaged to implement it, I evaluated the time, cost, risk and usability of a proposed new user interface project for a portable radio. Disliking the proposed new interface, I wrote a simulator, found the right people to show it to, and got the project cancelled, saving the company a fortune at my expense!

2000 European Telecom/ET Voice
Java, Swing, Speech Recognition, TESPAR, MATLAB, Mathematica

I ran a small research project into embedded speech recognition using TESPAR, a newly discovered signal processing technique.

1999 Advantra
Delphi (Object Pascal), UI Design

I designed and wrote a GUI application to test and configure pagers in shops.

1999 CLMP Software Research
Java, Solaris

I wrote a library of graphical java objects to display financial time series data in a project for Salomon Brothers.

1998 Green Cathedral
C++, HTML, Linux

I wrote a program to translate very large web server log files into readable html statistics and graphs.

1997-98 Philips Paging
Keil C and Assembler for 8051, Structured Analysis & Design, Protocols

I helped design the software architecture for a pager. I implemented the store manager component (A tiny filesystem which was considered for patent.), and then shrank it from 6k to 2k. In my own time I wrote a memory map and stack analyser for the Keil C compiler which was thought to have shortened the project several months by directing our optimisation efforts.

1996-97 Faraday Promotions
Borland C, Serial and Wireless Comms, ClearCase

I maintained and extended a vast undocumented C program. I automated regression testing and version control.

1989-96 King's College Cambridge
dBase IV

I designed and implemented databases for the college hardship fund, teaching activity (including my own!) and admissions as three separate fixed price contracts over six years, while I was still a student.

Education

1992-96 Imperial College London
Finite Element Analysis, Financial Analysis, C, Fortran

I investigated computer solution of non-linear diffusion problems in Fluid Mechanics and Financial Analysis, using Functional Analysis and the Finite Element method. I taught mathematics and Fortran in London and microeconomics in Cambridge. I realised that I liked computers more than research and went and got a proper job instead.

1988-91 King's College Cambridge
Degree in Pure and Applied Mathematics (2:1), Pascal, C++

1981-86 Abbeydale Grange School
BASIC, Modula-2, C, Forth

8 O Levels, 5 A Levels (AAAAB), STEP & S Levels Maths(1) Physics (1) Further Maths(1).