

**Ana Orec-Archer (35),  
BEng (Hons)**

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**PROFILE:**

Looking to further my career in engineering with a leading company. Keen, adaptable and interested in various areas of engineering, firmware, software and custom electronics design. Used to working in a team environment as well as project manage and able to deliver to deadline. Wide range of skills ranging from multi linguistic abilities and organisation. Friendly and positive outlook.

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**KEY SKILLS:**

- C# .Net GUI development for PC based and embedded OS
  - strong C developer
  - USB, SD, SDIO, NMEA, serial, I2C, UART interfaces.
  - Hardware knowledge both analogue and digital.
  - Device driver development for Windows OS
  - Expert in system integration, test and troubleshooting
  - Strong organisational skills and attention to details
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**PREVIOUS EMPLOYMENT:**

**Fianium**

Senior Software Engineer

Nov'12 – present

Software: Fianium is a UK manufacturer of ultrafast fibre lasers.  
As senior software engineer I have been developing GUI application for production ATE. Implemented test data database storage solutions. Test and measurement instrumentation software integration.

Firmware: Firmware development in C with Keil compiler for ARM based microcontrollers. Familiar with LDRA software analysis tools for MISRA 2012 standard code compliance.  
USB interface expert.  
VHDL CPLD design in Altera with ModelSim test bench generation.  
PCB design in Altium and schematic reviews. Experience in testing products for CE marking.

Project management: PM for 15 months TSB sponsored R&D project Brightlase to build the most powerful to date Fianium laser prototype with £500,000 fixed budget.  
Sales and RMA support. Strong quality focus.

**AOA Electronics**

Director

Nov '10 – Nov'12

I have started limited company in November 2010. My responsibilities include looking for new business, project development, project management, customer relations, administration, etc. Company offers microcontroller development, device and kernel drivers for Microsoft OS, Visual Studio software development, Java software development and Android OS application development.  
Expert in C# .Net Framework development.  
Expert in USB, SD/SDIO, NMEA, serial interface.  
Expert in assembler, C, Java coding.

#### *Recent projects include:*

SDPS Electronics	Visual Studio 2010 C# GUI project for SD based test and measurement product. This is a desktop based application where throughput is the key. Communication with the hardware done via Cypress driver.
Marine Data	Visual Studio 2010 C# GUI application targeted for Windows Standard embedded. This project was developed for marine industry. NMEA sentences on 4 input ports are monitored and analysed. User can enable alarms and select alarm conditions via touch screen.
Datum Electronics	Product testing contract work at the customer factory.
Selex Elsag	USB device driver development for Windows OS in C for a custom USB product. Read/write operation performed via 2 bulk and 1 interrupt endpoint.
Selex Elsag	Microcontroller code development with USB interface that is driven by USB custom device driver. Microcontroller code written in C, but parts of the code done in assembler for speed improvement and performance. Read, write and hardware configuration done via USB device driver.
Selex Elsag	Network driver modification for Windows OS in C. System development, test and debug. Network driver linked with USB custom driver to access and control hardware.

#### **Elan Digital Systems**

##### **Design Engineer**

Sept '07 – Nov '10	Company involved in design and manufacturing of electronics technology, data card adapters and drivers.
Software:	Visual Studio GUI projects for in house product testing. Maintaining and modifying customer software when troubleshooting during the development stage.
Firmware:	Experience in writing embedded firmware using C programming language. Code parts done in assembler to improve code efficiency.
Driver development:	Experience in USB drivers development, modification and maintenance. Drivers written in C for Windows OS.
Documentation:	Report and technical documentation writing. CVS used for the company projects version control.

#### **Agency Employment**

June '07 – Sept' 07	Relocation to the south of England. Various customer service temp jobs whilst seeking full time employment.
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#### **PRP Optoelectronics**

##### **Design Engineer**

Jan '02 – June '07	A small and dynamic company actively involved with military, avionics and medical projects that has made possible my engineering development in a broad range of skills. To date my main responsibility is the design and build of test equipment, writing and maintaining software applications.
Software:	Projects written in Visual Basic or Java NetBeans. Both serial and parallel port interface covered. Graphical user interface front designed for testing LED Display and drive electronics operation. Applications used for demonstration and end user test software.
FPGA Design:	Experience in schematic and VHDL FPGA designs using tools such as Xilinx, Actel, PeakFPGA. Typical FPGA projects have been LED display burn in code, demonstration unit code and test equipment FPGA designs. The systems would cover communication with the user environment, ASICs on the LED displays, microprocessor and/or EEPROM.
Firmware:	8-bit microcontroller assembly language projects were done, usually for LED demonstration unit; stand alone, dynamic, changing and moving displays.
PCB Design:	Test equipment 2-layer PCB designs done in Protel.

#### **British Airways**

##### **Language Host & Professional Interpreter.**

Dec.'99 - Apr.'00	General Duties consisted: Interpreting of Italian, Bosnian, Serbian,
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Croatian & English along with Customer care and Security procedures.

### **Organisation of Security and Co-operation in Europe (OSCE)**

Interpreter

Sept'98 - Oct'98.

General duties consisted: Interpreting for English speaking OSCE election supervisor for the 1998 Elections in Bosnia & Herzegovina.

### **CIGIL (Italian Trade Union Organisation)**

Humanitarian Administrator

1994 - 1999 P/T

Fulfilling my role as an organiser for a humanitarian group working with children in Bosnia meant learning team working / communication abilities. During this time I managed to progress my Italian Language skills and learn the culture.

### **EDUCATION:**

University of Sussex  
1998 - 2001

- BEng (Hons) Electrical & Electronic Engineering.  
*First class honours degree.*

International Baccalaureate

- Zagreb, Croatia 1996 - 1998

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### **OTHER SKILLS:**

Languages:

Fluent in Italian and Bosnian (Mother tongue).

General Computing:

Touch typing.

Total familiarity with Microsoft Packages: Word, Excel, PowerPoint.  
2D AutoCAD & 3D Designs done using Alibre CAD tool.

Full UK driving licence.

Strong Organisational and Teamworking abilities.

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### **INTERESTS:**

Fundraising -

I support Cancer Research UK with fund-raising events, such as a yearly 5K race.

Music -

Both Listening to music, and playing the flute & piano.

Outdoor sports -

Especially hill walking and hiking.

**Reference supplied on request.**