

# Fergus Duncan

## Profile

Highly experienced software, systems, development engineer and manager with extensive experience in the hosting, telecommunications, real time and process control systems and financial transaction processing industries, constantly moving into new technology areas as they emerge in the market. Demonstrated ability to deliver complex systems, from concept to product delivery, in a timely manner. Proven leadership skills in managing, motivating and developing team members. Extensive experience in customer facing roles in both product support and technical customer discussions/negotiations. Capable of applying this knowledge and experience to a very wide range of subject areas.

## Achievements

Successful delivery of many technology solutions in a wide range of industries. Successful development team leader. Technical leadership in the development of a world leading software product. World travelled through business as a technical leader. Thorough understanding of the software and solutions development process and the real world of the software / solutions business.

## Technologies

C, C++, Java, PalmOS, Perl, PHP, Unix Scripting

High Availability, Dual Redundant, Linux solutions including distributed database solutions, heavily opensource biased using Java J2EE, JBOSS, Hibernate, Heartbeat, DRBD network mirroring technologies

Real time development using ICE on OS9, OS9000, VRTX, PSOS, Windows, Linux.

Windows, Solaris, Redhat/Fedora Linux, PSOS, Apache HTTPd, XML technologies.

Oracle, DB2, MYSQL RDBMS, Objectstore OODBMS databases

Clearcase, Rational Rose, Teamware, CM Synergy, Subversion.

TIBCO Event bus, CORBA. TCP/IP Networking, Internet VPN, Cisco IOS, OpenVPN.

APACS 40/30/50 Financial Authorisation Protocols.

Various Object Orientated Development Methodologies

## January 2010 – Current : Bitwise Group

### Team Leader / Software Engineering

Performing research into high integrity, safety critical, Software Engineering and the use of advanced static analysis techniques and tools within real time software development.

## January 2009 – September 2009 : Alentus Corporation/Contract

Chief Operational Officer of Alentus Corporation, a US/Canadian business providing managed and unmanaged hosting and telecommunications solutions in internet marketplace. Tasked with a wide variety of tasks from technical solutions proposal and product selection, remote team technical management, high scale server solutions consolidation, datacenter consolidation, strategic technical planning, remote man management, technical leadership.

## November 2008 – January 2009 : Startup Consulting/Contract

Working with a group of entrepreneurs on new product/concept development in the area of robust, fault tolerant server solutions and databases in a consulting role.

## December 2003 – November 2008 : Ingenico UK Limited

Worlds leading electronic point of sales terminal manufacturer and financial transactions solutions provider.

### **Consultant Engineer**

Tasked with the onward development of business critical embedded and server class software applications to major UK retail and financial customers.

Leading the development of dual redundant, high availability systems using Linux, DB2, J2EE, Websphere, JBOSS.

Architecting, Designing and developing modular, reusable solutions, encompassing global IP telecommunications, co-location, security and embedded technologies.

Development team leadership with day to day man management responsibilities, technical and personal mentoring.

### **Principal Engineer**

Tasked with developing strategic embedded software solutions to provide mobile 'phone top-up and voucher sales, electronic utility pre-payment services.

Communications Specialist, Modems, TCP/IP, Protocol Development.

Tasked with developing and enhancing the development teams quality procedures, introducing new technologies and development processes based on previous experience.

### **August 2003 : LotusEcosse.com**

Developed the only Scottish online parts supplier for Lotus Vehicles. This business is an e-business in the classical sense and has run in profit since it's inception. Ran a parallel mobile Lotus vehicle servicing operation as part of LotusEcosse.

### **August 2003 : Redundancy from Cisco Systems**

Global downsizing results in 95% of our office being made redundant.

### **2000 – August 2003 : Cisco Systems (Glasgow)**

Leading networking equipment provider.

#### **Technical Leader / Architectural Specialist**

Tasked with developing next generation management system architectures, prototyping solutions, developing proof of concept applications, liaising between and working with development teams, marketing and product management, working with customers and delivering solutions to the market.

This Role has required a wide range of experience both in software development, many technology areas and the whole product development process. The ability to pick up and use new technology as and where necessary has been an every day part of life.

*Cisco Systems acquires Atlantech Technologies for \$180 million, a first of its kind acquisition in Scotland.*

### **1995 - 2000 : Atlantech Technologies (Glasgow)**

Start up company producing *Accessvision*, a network management product for emerging broadband access networks, in the service provider space.

#### **Senior Technical Architect**

Tasked with evolving the architecture of the *Accessvision* product and ensuring a good match with new market requirements. Promoting the product to Cisco and assuring a successful acquisition. This was a lead technical, customer facing position.

#### **Development Team Leader**

Managed a varying sized team of software developers, many of them graduate recruits. Mentored them and pushed them towards positions of responsibility within the team. Established a friendly working environment and used this development team to take our product to a second stage of maturity, while supporting the first generation of the product.

### **Software Engineer**

Responsible for the development of back end, real time server code used to model information about networks and recover data from managed network elements. Developed many patterns and modelling techniques that are still in use today in the latest generation of the product. Development was on Solaris sparc/intel in C++, both in the user and kernel space and using the latest development and debugging tools available to increase effectiveness. Developed a high performance database paradigm using Objectstore, and object orientated database technology. The primary objective of this database mechanism was performance and scale. Developed kernel level protocol drivers where no commercial ones existed as required. Worked as part of a small quality team to produce and improve our development processes and paradigms as the company grew.

Responsible for development of Windows based network element simulation software running under Borland C++, including building the hardware.

### **1993 - 1995 : Kvearner FSSL (Aberdeen)**

Subsea wellhead and platform control systems supplier.

#### **Software Engineer – R&D**

Research into next generation SCADA language being used locally to simplify the development of oil platform control systems.

#### **Software Engineer - SMACS subsea project**

Development of a topside and subsea simulator for testing wellhead control software and systems, C++ on Windows.

#### **Software Engineer - Shell PINS project**

Day to day development, budgeting and customer management for an existing product managing work permits on board oil production platforms.

### **1990 - 1993 : GEC Alstom - Traction (Manchester / France)**

Anglo French company developing and supplying state of the art power, electronic drive and on board control systems to the rail industry.

#### **Software Engineer - EONS project**

My first end to end project, from requirements development to final deployment testing in the field. Software development in Windows Turbo C for the GUI, and embedded C for the real time component.

#### **Software Engineer – Eurostar**

Developing real time power electronics and system control software used onboard the Eurostar channel tunnel train. Software development in real time C and proprietary PLC logic code, controlling many aspects of the trains systems from lighting to the main drive electronics. Long term support and onsite evolution of the control system software in France/Belgium. Long hours, hard work, but great fun and very satisfying.

### **During University : Owl Micro Systems**

My own startup software company producing educational CAD software, ultimately sold to the majority of UK secondary schools and incorporated into the educational syllabus.

Basic/Assembler.

## **Academic Qualifications**

BSc Hons (2.1) in Software Engineering and Microelectronic Systems  
Dundee Institute of Technology  
A-Level Physics  
Higher Maths, English, Physics, Chemistry, Biology

## **Personal Details**

Date of birth: 14th September 1968  
Marital Status: Single, long term Partner

## **Interests**

Outdoors, Travel, Competitive Motorsport, Mountainbiking, Snowboarding.

## **Contact**

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