

# Curriculum Vitae – Ian Pleasance

Date:08/09/17

White Ash House  
White Ash Green  
Halstead, Essex  
CO9 1PD

Born: 29<sup>th</sup> May 1968  
Nationality: British Citizen

Telephone: **020 7043 6888**  
Mobile: **07990 572842**  
eMail: **ian@planetbuilders.co.uk**  
Web: **www.planetbuilders.co.uk**

I am a dedicated and flexible individual with the ability to quickly analyse; systems, tasks, and requirements. My ability to think 'outside of the box', a 'can-do' attitude, and a wide range of technical and soft skills allow me to rapidly design and implement solutions.

## Career summary

- 2011-** Architect, engineering lead/SRE consultant, providing design, development and consultancy services to businesses primarily in the fields of news and new media publishing, and media/socially-focused startups.
- 2011-** Technical Director – [Mindings](#). Architect and co-designer of the Mindings service, responsible for taking it from a concept to a market-ready product.
- 2008-2011** Content-management system designer and developer for the [Financial Times](#), performing development work and providing high-level (tier 3) support for Newspaper and web Content Management Systems as well as content and integration services.
- 2005-2008** Web/IT consultant and freelance software developer.
- 2003-2004** Senior Support/Pre-sales Technical Specialist – Yahoo! Europe
- 2002-2003** Lead Technical Specialist-Asia and Europe – Inktomi Corporation
- 2001-2002** European Technical Support Manager – Inktomi Ltd
- 1999-2001** Technical Support Engineer for Inktomi Ltd
- 1999** IT Contractor.
- 1996-1999** Internet design, implementation, and support specialist – The Royal Borough of Kensington and Chelsea (“RBKC”)
- 1993-1995** Unix/IP network design, development, and lead support – RBKC
- 1990-1992** Systems development, designing/developing extensions to IBM’s CICS and VTAM transaction processing systems - RBKC
- 1989-1990** Systems administrator and Technical Support specialist, managing local government IBM mainframe server farm – RBKC

## Education

- 1986-1988** Essex Institute of Higher Education (East Anglia University). BTEC H.N.D. Computer Studies (Technical Option) gaining "Distinction" grades in all subjects - the maximum grade attainable countrywide highest attainment that year. The "Technical Option" focused on O.S. design, interfacing, networking and “Low-level” computing.
- 1982-1986** Highams Park Sixth Form/Senior High School. "A" Levels in Maths and Physics, "OA" Level in Maths, "O" Levels subjects, including; Maths, Physics, Chemistry, French, German, Economics, English Language/Literature, and Technical Drawing.

Languages I have differing levels of skills in a number of languages, including; French, German, Japanese, and basic knowledge of other European languages such as Italian and Spanish.

Other  
Interests

I produce television and film documentaries which are aired on Sky TV, and do video production work for various Non-Profit groups..

## **Skill Set for Ian Pleasance**

With over 30 years of experience in the field of commercial Information Technology, I am well versed in a wide range of IT and related skills, including both technical “hard” skills, and “soft” skills. One of the many things which differentiates me from other IT professionals is that I am customer focused and well versed in business issues - having experience of both the implementation of technology and its application within business development.

I have worked for product and service supplier organisations, and within group sizes ranging from only-myself through small and large teams. I am self-reliant and experienced in managing, training, and mentoring other staff members.

My previous fields have included industrial control and robotics, operating system development and customisation, systems management and operation/administration, commercial transaction processing systems, interactive web applications, portal/search engine development using Internet and Web/Open Systems protocols, enterprise-level content-management systems and publishing systems.

### **Platforms**

#### *Unix*

- Linux (from pre 1.0 kernels through 3), on physical, virtual/partitioned, and cloud infrastructure
- Solaris 2.4, 8, 10 on both physical hardware and containers
- FreeBSD, AIX/6000 and AIX/PowerRisc (with LVM), QNX, SCO Unix, UTS, Pr1mOS

#### *Storage, clustering/high availability*

- EMC/Clariion
- EMC/DMX with EMC/SRDF
- Veritas VCS
- Veritas VxVm

#### *Java*

- Oracle JRE, JDK, OpenJDK
- Eclipse

#### *Databases*

- Cassandra
- MySQL
- Postgres, Versant, Adabas, MSSQL

#### *Windows*

- Windows 7, Vista, XP, 2003 Server, 2000 Server/Professional, 2003 Server

#### *Macs*

- OSX Snow Leopard, Leopard, Tiger, Panther

#### *Virtualisation*

- VMWare
- User Mode Linux, Xen
- Solaris containers, P2V
- Bytemark, Rackspace and other “cloud” Linux providers
- Amazon EC2 AWS,EBS,S3

#### *IBM Mainframes*

- IBM, Amdahl, and Hitachi boxes in a range of configurations
- VM: HPO,XA,ESA; SMART, Dirmaint, GCS, ISPF, TUBES, CMS, TCP/IP, RSCS, EREP, DSF
- VSE: SP and ESA; POWER
- CICS: SP and ESA
- VTAM: VTAM itself, NCP, EP, SSP



## Development Languages

- Perl
- PHP
- Python
- Go
- Javascript, JQuery, nodeJS
- Java
- Unix shell scripting (bash, ksh, and others), TCL
- C, C++
- Modula-2, Pascal
- IBM 370/390 assembler, REXX, COBOL,
- 80x86, 68000, 6502/z80 assembly languages.
- Visual Basic, Visual C/C++
- HTML, CSS
- XML, XSL, XHTML

## Monitoring

- Zabbix
- Nagios
- BMC/Patrol
- Cricket/RRD
- New Relic
- Pingdom

## Cloud Platforms

- AWS - Certified Solutions Architect (Associate and Pro), Developer (Associate) and Sysops Administrator (Associate)
- Google Compute/Kubernetes Engine
- Rackspace
- Linode

## Internet and "Open systems" communications

### *TCP/IP*

- Network planning and topology design, including LAN, WAN, and Extranet/VPNs.
- Installation/monitoring of routers, segments, and clients with SNMP, Openview, etc.
- Capacity planning, general network support and problem diagnosis.

### *Routers and Switches*

- Cisco, Bay Networks, Network Systems Corp, Netgear, D-Link, HP, amongst others.

### *Firewalls*

- Cisco Pix, Netgear, Smoothwall, and many software firewalls (e.g. IPTABLES)

### *HTTP servers*

- Apache 1.3, 2.0-2.4, mod-perl, mod-ssl
- Tomcat 5-7
- thttpd, lighttpd
- nginx

### *Network appliances*

- JetNexus
- Cisco CSM, 3DNS

### *HTTP caches, proxies, load balancers*

- Varnish, Squid, Pound, Traffic Server, MS Proxy Server, Amazon Elastic Balancer, a variety of others.

### *eMail servers*

- sendmail, exim, qmail, majordomo, mailman, postfix, and others.

### Telephony and VoIP protocols and software

- TDM, Analogue/PSTN, Carrier Banks, SIP, IAX, H323, SCCP, Asterisk, SER

### Carrier Protocols and layer 2 technologies

- Ethernet, Gigabit Ethernet, FDDI, SNA

### Application Protocols or content-carriers

- HTTP, HTTPS, HTML, XHTML, XML, XSL, CSS, FTP, SMTP, JSON, many others

### Mobile Devices and operating systems

- Apple iPhones, iPads; IOS
- Android, including some Android development experience
- J2ME
- Symbian phones, Nokia S60V3 and others
- Motorola phones

### Social Media integration

- Facebook
- Twitter
- OAuth
- Mobile phone (SMS/MMS) API integration through Clickatell, TextLocal, and others

### Publishing and Content Management

- Wordpress, WooCommerce
- Drupal 6, 7
- Méthode
- OpenText Content Hub for Publishers (CHP)
- OSCommerce
- Printed Page Layout
- Pagemaker
- Adobe InDesign
- Microsoft Word

### Code and change management

- Git
- Jenkins
- TeamCity
- Puppet
- Ansible
- Ant
- Anthill Pro
- Subversion
- CVS, ViewVC

### Project management/methodologies

- Agile/Scrum
- Waterfall

### Soft/management skills

- Team management
- Team lead/mentoring
- Support/telephone skills training
- Technical project lead

## Media Production

- Video: Sony prosumer/broadcast video cameras
- Photography: Canon prosumer still cameras
- Lighting: Pag lights
- Sound: Sennheiser, Beyer microphones
- iLife, Final Cut Pro
- Adobe Premiere Pro, After Effects
- Video production workflows
- Video ingestion, transcoding, and post-processing

## Miscellaneous

- Fingerpost
- Autonomy
- Kafka/Zookeeper

## **Full Career History for Ian Pleasance**

### **2016 – Current**

Architect, Tech Lead, and Principal Engineer – News UK.

In late 2016 I was asked to return to News UK to lead the development of a new digital platform for one of their top-tier international web sites.

The remit was to build a new distributed digital platform for both web and app content, which was; highly flexible, served fast-loading “mobile first” sites, was decoupled from the title’s Content Management System, would be reused by multiple consumers (web, mobile, apps, feeds) and that would allow the title to rapidly implement new features in the fast-changing digital news market.

A secondary goal was to help News UK’s engineering team move towards more modern development practices, such as Agile working, CI/CD, Open source toolchains, and to work in a more Dev Ops type way.

This role spans multiple typical roles. As Architect for the programme I am responsible for designing a flexible architecture and ensuring that current developments and subsequent requirements fit within it. As Tech Lead and Principal Engineer I am responsible for working with; the business, programme leads, project managers and scrum masters to ensure that the programme’s development teams deliver quality work to an agreed schedule, for mentoring and advising more junior team members, and for helping the title Head of Technology and Director of Engineering to transform and grow the team into a modern performant development team which uses best practices.

In March 2017, the title Head of Engineering resigned his position. It was decided not to hire an immediate replacement, and I was asked to additionally take on the responsibility on an interim basis. This is currently still the case and means that I have responsibilities for; strategic growth, recruitment and team building, mentoring of senior developers within the team, technical decisions and strategies, and other tasks.

More information on this ongoing role is available on request.

### **2016 – 2016**

SRE – Bloomberg LP. SRE within the Market Data Feeds group.

Bloomberg’s Market Data Feeds teams develop and operate software to allow exchanges and other data contributors to feed securities, fund values, and other financial trading data into the Bloomberg Terminal.

The goal of this assignment was to advise on growing a tactical SRE team for the data feeds division, which would then own the “non-functionals” around the division’s technology. These would include; monitoring, release/deployment, tooling and automation, performance, scaling, and best practices. In parallel, to help the business’s engineering division to engender modern working practices and structures.

More information on this role is available on request.

### **2014 - 2016**

In January 2014 I was invited to return to the Financial Times as contract consultant. The primary requirement was to provide integration and application/platform design and consultancy/support services, predominantly to the “membership services” division to assist in the design and implementation of a ground-up rebuild of the FT’s membership and subscription stack. The project also included a transformative element, with the intention of adopting Agile practices and building DevOps type teams.



This included :-

- Design and implementation of highly-available multi-region applications and clustered database and message-layer systems
- Mentoring and training of development teams in order to empower them and help them transform into modern “Dev Ops” style teams.
- Implementation of continuous deployment and delivery workflows.
- Adoption of modern development practices including Agile/Kanban, CI/CD, XP/pair programming.

Further details regarding this role are available on request.

## **2013**

In February 2013 I was asked to provide consultancy services, via Daemon Solutions, to News UK’s (ex News International) “Newsroom 360” project. This was a 4-year transformational project to build a new multi-channel publishing system which would allow the creation, curation, and publishing of all of News UK’s print and digital publications – ranging from newspapers and magazines to web sites and tablet/e-reader edition content.

The initial contract was for two months with remit of re-examining the architecture and design work that had been completed over the previous two years and identifying issues which might either cause the project’s go-live date of July 2013 to be at risk or that could lead to stability or support issues in the early weeks of production usage.

After completing this, providing my recommendations, and ensuring a successful go-live, the project asked me to continue for another 7 months to assist with architecture and solution design for the remaining parts of the project’s scope. This included areas such as; Multimedia (video and audio) production workflows and integrations, print and digital archiving, and pre and post-publication syndication. I also worked on enhancing other integrations, and provided general architecture and design consultancy and used my experience to assist other teams working alongside the project team such as the; deployment, infrastructure, and monitoring teams.

The contract successfully completed at the end of October 2013.

## **2012-**

In December 2011 I became the Technical Director for “[Mindings](#)”, a start-up based in the Social Media and Consumer Telecare markets. As such since that time I have been responsible for managing and leading the technical development of the business and taking its early prototype software to market, turning it from a “proof of concept” idea to a usable scalable solution for large scale use.

My role includes responsibility for; designing and managing architecture, designing new features - including the integration of new content sources and social-media platforms, managing outsourced developers and other team members, and generally overseeing all technical work – either doing it myself or in conjunction with outsourced/freelance developers

Skills predominantly used during this period include; Linux, Apache, MySQL, PHP, Perl, Rackspace Cloud, EC2, Drupal, HTML, CSS, Javascript/jQuery, social media (Facebook, SMS Gateway, OAuth, iCal, and others) APIs, XML, JSON, Wordpress, and more.

## **2011**

Web and software developer providing freelance development and consultancy services to businesses, predominantly using Linux, Apache, MySQL, PHP and Perl, HTML, CSS, Javascript/jQuery.

## **2008-2011**

I was approached by a recruitment consultant for the Financial Times (Pearson group) seeking a new member for their "WMIT" team. This team comprised of a small group, each with a very wide-ranging skill set, focused on system/application-stack (Apache, Tomcat, etc.) architecture development and high-level (tier 3) troubleshooting. The team's role was to bridge the gaps between development, support, and architectural groups, and my skill set coupled with previous domain knowledge of the FT (their having been a customer of mine at Inktomi) made me an ideal fit.

The newspaper's primary content management system (Méthode, by Eidos Media) had not been fully-updated or pro-actively maintained for some years and so my first long-term project was a complete revision of it. This required a complete stack rebuild; new Sun hardware, a switch to Solaris 10, upgrades of all the Eidos server software, Java, Tomcat, and Perl. As part of this all local customisations had to be rewritten or recompiled, utilities ported across, and everything made completely transparent to the user base. At the same time we designed and implemented a Disaster Recovery solution using parallel data centres, EMC SAN storage, and real-time synchronisation through EMC's SRDF.

I was the lead WMIT technical team member throughout the project, and until I left the FT I continued to be the primary developer and development-architect for the content management system stack, and the Team's local domain expert.

Skills used: Solaris, Tomcat, Java, Apache, CMS and publishing knowledge, perl/shell scripting, architecture and platform design, high-availability design, and general troubleshooting. Soft-skills included; developer cross-training and mentoring of other staff.

## **2005-2008**

IT Consultant and software developer, specialising in the fields of Search Engine customisation and optimisation, portal/e-Business, content-management-system design and implementation, and IT/Telephony convergence.

During this time period I performed development and consultancy work, primarily within the portal/content-management-system (CMS) and new telephony fields, for a wide range of customers. I completed many projects and contracts covering a broad-range of IT areas, such as infrastructure design, support planning, and business/IT infrastructure review.

One of my more significant roles during 2005-2006 was the design and development of a state-of-the-art browser-based content-management system which provided SME businesses with a fully-managed Internet/E-business presence including the ability to self-create/maintain web sites which were highly accessible to end-users, search-engines, and disabled users. The resulting system was marketed by Flatpack Software Ltd, and remains in use to-date. Its combination of; fully customisable and extensible architecture, low levels of software requirements to use, and ease of use, resulted in its being particularly popular with charities, NGOs, and other types of organisation/business which required their web site to be rapidly maintained by multiple people in parallel.

Skills used: Having worked on a wide range of projects, I have used most of my skill set during this period. However the primary skills used in 2005-2006 have been; Linux, MySQL, perl, PHP, Javascript, Apache, Squid, Web application development and debugging, Web site usability/DDA analysis, Web site/application cache-usage testing and improvement, SIP, Asterisk, system availability monitoring, and site-support process definition/tool development.

## **2004-2005 (Spring)**

IT Consultant. After deciding to leave Yahoo! and return to consulting work, I spent the majority of 2004 performing infrastructure design and advisory work for a telecoms start-up who wanted to specialise in the new-telephony/converged telephony areas, specifically VoIP and virtual switchboard technology. This role

extensively utilised my wide-range of technical and soft-skills as it required planning for and advising on the selection and deployment of all product and service areas, from testing and customisation of end-user hardware through development of Internet and telephony carrier infrastructure, liaising with back-end service suppliers, through the provision of managed services and logistical services such as billing and CRMs.

Skills used: During this time period I predominantly used my Internet and telephony/ communications skills, including; Linux, Solaris, SIP, Asterisk, SER, Web development skills (specifically PHP and perl). I also used my soft skills extensively, performing training for junior team members and resellers, developing process flow and specification documents, and supplier-interaction processes and business rules.

### ***2003-2004 Senior Support/Pre-sales Technical Specialist – Yahoo! Europe***

Following the acquisition of Inktomi Corporation by Yahoo! I accepted a position with Yahoo! Europe as Senior Support and Pre-sales specialist for the Yahoo Search Technology (nee Inktomi Websearch) product. My role involved pre-sales technical consultancy and sales-engineer/support work, implementation support – assisting design and development of portal front-ends using the Inktomi (now “Yahoo YST”) product, and post-sales assistance with further development, problem diagnosis, and customer account management. I managed the relationships with high-profile “tier 1” customer accounts such as BBC, Web.de, Lycos Europe, Toshiba, Abacho, and many others across Europe and Asia. I provided large-scale input into the selection and sales process of many of these tier 1 customers, and have been told numerous times by partners that my support, assistance, dedication, and reputation was a significant factor in their selection of “YST” as a Websearch service. My responsibilities and tasks included all of those undertaken during my Technical Specialist/Technical Support Engineer roles at Inktomi, and further added additional pre-sales and account-management work – including the development and presentation of sales pitches and lead analysis.

Skills used: For this role, I used a wide variety of Internet-based skills, predominantly; analysis of web sites and portal back-end web applications along with performance tuning and optimisation of these sites/applications in order to improve end-user and search-engine performance and accessibility, crawler/cache/web-site interaction debugging, analysis of large-content sites such as bbc.co.uk to improve their accessibility to search engines by better optimisation of content, cache usage, and better modification timestamps. I also trained customer in-house developers in how to develop good portal applications and acted as general developer-support and advisor to them.

### ***2002-2003 Lead Technical Specialist-Asia and Europe – Inktomi Corporation***

Following the decline of the .com sector in general, Inktomi underwent a number of rounds of redundancy resulting in the numbers of European support team members being cut severely. With the new organisation structure and size I decided that there was no longer a requirement for a local team manager, and so elected to move back into the Websearch area – taking on additional responsibilities as worldwide Technical specialist and support lead, and absorbing direct responsibilities for the Asian market. During this time I was the focal contact for all customer development work and problem diagnosis for tier 1 and 2 customers across Asia and Europe, including; Mitsubishi, NTTx/Goo, Daum, AOL, MSN, BBC and many others.

Skills used: As above, however during this period I developed my Asian language skills extensively, as we had very little in-house developers with Japanese/Korean and non-english European language skills and so I was able to support them by solving many double-byte character set issues and mainland European site parsing issues.

### ***2001-2002 European Technical Support Manager – Inktomi Ltd***

As the Inktomi support group grew, there was an increased need for a local manager. I accepted this role in 2001 with the goals of managing the day-to-day needs of the team, developing staff member’s career paths, and growing the team to meet the needs of the expanding company and customer base. I was directly responsible for obtaining hiring requisitions, setting salary levels and designing job descriptions, recruiting, interviewing, and hiring candidates. I was also responsible for all day-to-day staff needs such as HR issues, and for long-term staff needs such as training, career progression, and path development.

Skills used: During this time I underwent management training and further improved my team-management, lead, and mentoring skills. I added to my skill set the ability to; hire, interview, and train team members, and help them with their own personal and career development through use of pro-active training and career guidance. I additionally continued to utilise my full range of technical skills in order to act as a technical and managerial escalation point and support-advisor for my team members.

#### **1999-2001** Technical Support Engineer for Inktomi Ltd

In 1999 while attending an interview for a contract role, I was introduced to Inktomi Corporation, a purveyor of Websearch services to the OEM and Portal market. Inktomi were looking for an individual with a wide-ranging technical and soft skill set who could provide account and technical support and pre-sales assistance to the increasing European Websearch portal market. I joined Inktomi in 1999 and immediately became a part of the core Websearch sales, support, and development team. During this period the number of European customers grew from 2 to over 20, and I had sole responsibility for this entire customer base until an additional business manager was hired in late 2001. The tasks taken for this role spanned the whole sphere of pre and post-sales customer support and management, including; advising on portal applications design and Websearch service integration, development of custom tools, web applications, and scripts - to allow for customised reporting and ad-hoc facilities required by customers, attendance at sales conferences and trade shows, and authoring and performing technical sales presentations. I was available to customers around the clock and worked with them both on-site across Europe and Asia, and via telephone/electronic communications. I also frequently used my system and network design and configuration skills to help customers with problems or issues on the servers and equipment upon which their portal application ran - my customers' portals typically ran on Linux, Solaris, or Windows NT/2k.

Skills used: As part of this role I used a wide variety of Internet and Web skills, ranging from application development guidance, through debugging of customer web application problems, through debugging of interactions between our search engine crawlers, customer and end-user web sites, and advising our customers on how to make their own content more "crawlable". I extensively used my Web and tool development skills, and wrote numerous utility tools and demonstration/sample portal web sites – which were then made available to customers as a starting point for their own rapid application development requirements. This included use of Linux, perl, PHP, Apache, MySQL and Solaris amongst many others.

#### **1999** IT Consultant (Self-employed)

Throughout most of 1999 I worked as a self-employed IT consultant, performing work for a variety of customers. My contracts and consultancies covered a wide range of areas, including; online application development, device driver development, system configuration and deployment, and infrastructure design,

**1989-1999** During this period I worked in various roles within local government, for the majority of the period being with the Royal Borough of Kensington and Chelsea (“RBKC”) – a high profile London borough with a history of being an early adopter of new technology. These roles are listed below :-

#### **1996-1999** Internet design, implementation, and support specialist - RBKC

In 1996 I took charge of the deployment of Open Systems platforms and protocols, with the goal of moving the various corporate networks into the Internet age. My work within this area included the design and implementation of SMTP email across the networks, including the customisation of email servers/gateways, and often the design and development/coding of email servers on platforms which did not currently have them, for example IBM's VM. I also deployed Intranet servers, designed and implemented links from the corporate networks to the Internet (including suitable security products), and acted as the corporation's focal point for Internet and Open Systems application/protocol deployment until I decided to leave RBKC in 1999.

#### **1993-1996** Unix/IP network design, development, and support specialist – RBKC

Although still performing some mainframe work, for this time period I took on responsibility for the management of all Unix and Windows NT machines in use by the borough. This included IBM RS/6000's, SCO

Unix and Linux PCs, and one UTS/370 Unix system (a system/370 system based on BSD Unix). I also managed the Windows NT servers that interfaced with the Unix machines.

This role included system installations, upgrades and daily system administration tasks as well as problem resolution, software installation and upgrades, and the development of scripts and programs to aid end users and other IT staff. I wrote the majority of in-house developed software including diagnostics tools, systems management tools, end-user tools, and front-end type applications. I was also responsible for security policy, monitoring and enforcement.

A key part of my role during this time was to transition the borough's infrastructure away from proprietary protocols such as SNA and SDLC, to Open Systems protocols – TCP/IP and Ethernet. Throughout this time period the corporate infrastructure went from using the SNA protocol and SDLC lines to TCP/IP over Ethernet and FDDI. The network progressed from a single thin Ethernet segment to a large dual channel FDDI backbone with 35 departmental local Ethernets and associated hubs/routers - plus LAN/WAN links to other departments and remote sites via KiloStream, ISDN and fibre, and a frame relay Internet link. I was responsible for the management and support of the central TCP/IP network and all dialup communications at the borough.

As part of this transition I was responsible for network design, IP addressing scheme design and IP address allocation, as well as router and host configuration with both static routing and dynamic (RIP and OSPF) routing. Until such time as I trained network support staff and handed off routine network administration to them I also performed the diagnosis and resolution of all network related problems.

**1990-1992** Systems development for local government/IBM developing extensions to IBM's CICS transaction processing system – RBKC.

Having gained in-depth knowledge of the IBM mainframe platform, in 1990 I moved roles to concentrate on software development. During this time period I focused on the creation of OS patches, modifications and extensions, system-level applications such as SNA/VTAM terminal services, and singly-handled migrated all of the borough's CICS system applications from 24 to 32 bit architecture, simultaneously migrating them from their older CICS Macro level unsupported code to rewritten code using fully supported APIs. I then designed a full replacement for the borough's in-house CICS and transaction security system, and wrote the entire codebase for it – this continued to be used by the RBKC through 2006 and included transaction and user authorisation, automated security monitoring (including intrusion detection with terminal/user lockout), and user menu routing.

**1989-1990** Systems administrator and Systems programmer in local government field, managing IBM mainframe server farm - RBKC

In 1989 I accepted a position with the Royal Borough of Kensington and Chelsea, working within the Technical Support group of their mainframe computing division. My role included the installation, customisation, and management of the Royal Borough's mainframe system and related infrastructure such as SNA/SDLC networks. Having had no mainframe background previously, I rapidly learned the IBM hardware and software and took on primary responsibility for customising the systems, developing new system utilities and security utilities, and ensuring that the mainframe infrastructure was upgraded as new OS releases and hardware devices were added.

**1988-1989** Freelance IT/development work.

**1986–1988** (part time) – Technical and Customer support supervisor for a computerised-Taxi network's call-centre.

Throughout my college studies, I worked part-time for "Computer Cab Co. Ltd", the largest licensed radio taxi circuit in Great Britain. The company dealt with the allocation of taxi journeys from account customers to over two thousand taxi drivers. I worked as weekend shift supervisor and was directly responsible for between 15 to 20 staff. This role involved some day-to-day computer administration, solving computer related problems (liaising with the programmers), and solving business related problems (liaising with customers via telephone).

As part of this, I was fully trained in, and trained others in telephone skills and customer liaison skills.