Omar Bashir

No. 15 Wallmead Gardens, Loughton, Milton Keynes, United Kingdom   *E-mail obashir@yahoo.com*
Phones: +44 7835 123997, +44 1908 55 40 27

A software engineer with experience in design, development and optimization of structured and object oriented applications. Development experience includes,

- Involvement in the architectural-level design of various applications,
- Development of extensible object oriented libraries for specific applications,
- System and application level interfacing involving diverse technologies,
- Implementation of automatic-code generators for specific application modules,
- Distributed and networked application development using sockets and middleware technologies,
- Design and implementation of graphical user interfaces.

CORE COMPUTING SKILLS

- **Languages**: C, C++ (Including STL), Java (JDK 1.5 using Netbeans), Visual Basic, Familiarity with C#
- **Tools for Distributed Applications**: UNIX Sockets, Java Sockets, MFC Socket Classes, Java RMI, CORBA
- **Concurrency**: POSIX Threads API, Multi-threading in Java
- **Markup and Scripting Languages**: HTML, Javascript, ASP, XML, WML & WMLScript, Python
- **Software Testing**: JUnit and CppUnit test development
- **Operating Systems**: Development experience in Linux, Windows, DOS and Solaris
- **Design Techniques**: OOA&D, DFDs, State Transition Diagrams, Structure Charts, UML
- **Database Connectivity Tools**: ADO, DAO, JDBC

EMPLOYMENT HISTORY *(Last 5 Years)*

	Organisation	Designation	Duration	Primary Responsibilities
•	FKILogistex plc.	Systems Engineer	Apr 2005	• Design and implementation of various components of Warehouse Control and Management Systems.
•	Loughborough University	Research Associate, High Speed Networks Group	Aug 2004 - Apr 2005	• Operate, maintain and upgrade BT's SMDS performance monitoring suite. • Perform research and development on the monitoring of computer networks.
•	Ittihad University	Assistant Professor	Sep 2003 – Aug 2004	• Computer science and engineering laboratory and curriculum development. • Teaching undergraduate computer engineering and computer science students.
•	Communication Enabling Technologies	Senior Member of Technical Staff	Oct 2002 – Sep 2003	• Hand-on management of teams of software engineers designing and developing telecom and data communication systems.
•	Communication Enabling Technologies	Senior Member of Technical Staff (Part time)	Feb 2000 – Oct 2002	• Design and development of telecom and data communication systems.
•	Pakistan Air Force	Incharge Data Comms, Project Vision	Aug 2001 – Oct 2002	• Design and development of gateways to integrate diverse networked application .
•	National University of Sciences and Technology	Associate Professor, Computer Science, College of Aeronautical Engg.	Dec 1999 – Aug 2001	• Teaching undergraduate and postgraduate students including supervision of their theses. • Performing relevant research and consultancy.

ACHIEVEMENTS

- Technical and research publications in International Conferences and Journals
- Doctoral research scholarship awarded jointly by British Telecom plc. and Loughborough University   1996
- Chief of Air Staff Commendation Certificate for contributions in development of test systems   Aug 1993
- NED University Gold Medal   Dec 1989
- Squadron Leader Arif Manzoor Shaheed Gold Medal, College of Aeronautical Engineering   Dec 1989
- Chief of Air Staff Trophy for Best Performance in Engineering   Dec 1989

EDUCATIONAL QUALIFICATIONS

Degree	Institution	Majors	Date Gained
PhD	Loughborough University, Ashby Road, Loughborough, UK, LE11 3TU	Thesis : Management and Processing of Network Performance Information	July 1998
MSc	Loughborough University, Ashby Road, Loughborough, UK, LE11 3TU	Information Technology (Electronic Communication) Thesis : ATE for JPEG Codecs	Nov 1995
BE	College of Aeronautical Engineering, PAF Academy, Risalpur, Pakistan	Avionics Systems Engineering	Dec 1989

PRODUCT DEVELOPMENT EXPERIENCE

- ***Warehouse Control and Management System Components (2005)***

    Key Features: C++, C, Linux, Java, GUI development using Netbeans, Network Programming, CORBA, POSIX Threads API.

    Designed and implemented various vertical functional components of warehouse control and management systems. These include frontend GUI and backend database modules.

- ***Application Level Gateways (2001-2002).***

    Key Features: C++, Linux, Windows, Solaris, Network Programming, POSIX Threads API (Multithreading), Serial Port Programming, Multi-platform Integration, Data Structures, Object Oriented Development.

    Designed and developed extensible application level gateways to interwork radars and C^3I systems in a multi-platform and multi-protocol environment.

- ***Facsimile over Packet Protocol Stacks and Gateways (2000-2001).***

    Key Features: C++, Linux, Network Programming, POSIX Threads API (Multithreading), FoIP, FoATM, Object Oriented Development.

    Designed and developed facsimile over packet protocol stacks. Used these protocol stacks to develop FoIP and FoATM gateways and interworking functions.

- ***Network Performance Monitoring Systems (1996-1998).***

    Key Features: C, C++, Java, Solaris, DOS, Network Programming, Data Structures, Algorithms, Network Performance Statistics, File Structures, Object Oriented Development.

    Received funding from British Telecom and Loughborough University (UK) to perform Doctoral research in this area. Developed network performance monitoring systems that were installed on BT's SMDS WAN. These monitors collected performance data that were analysed and presented to BT in weekly and monthly reports indicating network faults, abnormalities, SLA violations and seasonal trends.

- ***Automatic Test System for EW Systems (1991-1993).***

    Key Features: HP-BASIC, GPIB, COTS PME (Precision Measurement Equipment) based systems development.

    Developed an automatic test station for RF modules of electronic warfare systems in use in Pakistan Air Force. Received a commendation certificate from the Chief of Air Staff upon successful delivery and commissioning.

RELEVANT TECHNICAL PROJECTS

- ***Post Doctoral Research in Network Performance Monitoring (2004- 2005).***

    Key Features: C, C++, Linux, Network Programming, STL, Object Oriented Development.

    Operated, maintained and upgraded the performance monitoring infrastructure of BT's SMDS wide area network. Also performed research in network performance monitoring systems and developed related software.

- ***Web based Music Delivery (2003).***

    Key Features: C, Linux, Windows, Network Programming, Java, JDBC, HTTP, HTML, XML.

    Involved the automatic remote programming of embedded Web enabled video jukeboxes for a US based music distribution company. This part of the project required the retrieval of authorized media programming from the databases and transferring these to the jukebox for playout.

- ***Biometric Security Application Development (2001).***

    Key Features: C, C++, BioAPI, Windows, DAO, Object Oriented Development

    Received consultancy from a biometric security company in the US. Developed object wrappers over the BioAPI to facilitate object oriented application development using the biometric devices developed by that company.

- ***Fault Detection, Isolation and Restoration in Telecommunications (2001).***

    Key Features: C, Linux, Network Programming, Network Fault Management, Data Structures, Algorithms,

    Received consultancy from a telecom startup in US. Developed and implemented algorithms for their optical fiber network components to detect and isolate faults and to apply restoration.