HADEED KHALID

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Nationality: British

PROFILE

Keywords: Object-oriented design, simulation and verification, computer networks, security, scripting/automation, machine learning real-time graphics, end-to-end web, reconfigurable hardware, embedded systems, distributed computing, virtualisation

TECHNOLOGIES

Advanced: ASP.NET(C# 7), C# core, JQuery, JavaScript, LINQ, JSON, XML, CSS, XHTML, MATLAB, C, C++, Linux (Debian, Ubuntu, CentOS, Archlinux), TSQL, Stored Procedures, Microsoft SQL Server 2008/2012/2014, VS 2010/2012/2013/2015/2017 Windows XP/Vista/7/8/10/Server 2003/2008/2012, Virtual Box, VMware, Hyper-v, batch file scripting, Putty, Pscp, FileZilla, Bitvise Tunnelier, MantisBT, NetSuite, MS Office, Visio, LibreOffice, OpenOffice

Intermediate: Azure, WebJobs, MVC, Ruby, Padrino, PowerShell, React, VueJS, AngularJS, Node.js, Python, Bash, STL, Boost, VBA, VBScript, Java, PHP, MySQL, LAMP, SVN, Git

Basic: Win32, GDI, DirectX, OpenGL, WebGL, HLSL, GLSL, Blender, Occulus SDK

EXPERIENCE

02.2018 – Software Engineer at Insure Telematics Solutions

- ASP.NET (C#) MVC, Operations Portal. Service Layer, SCS, SOLID, Entity Framework, TDD, CI/CD, Azure, Queued WebJobs, Azure Service Buses and Functions, ETL, Serverless Architecture, Interactive Google Charts, Google Maps API, Ninject IoC Container, Sitemap, integration with 3rd parties via SOAP and JSON APIs, Full SDLC, porting, SQL, sprocs, Bespoke integrations and DB migrations, IOT packet decoding, some ML, Azure HDInsight Spark POC, Microservices-based queued WebJob Architecture.

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06.2018 – Payroll Software Developer (contract) at Webroster Ltd

- Integrated ASP.NET (C#) Payroll solution. Full SDLC. JSON API. Interactive Payroll Wizard.

10.2013 – 01.2018 Software Developer at Webroster Ltd

- Integrated and stand-alone ASP.NET (C#) Payroll solution. Full SDLC, MVVM Architecture, JSON API, JSON stack, JSON storage, constant sessions across apps using proxy, generics, interfaces, IOC, DI and design patterns. Payroll knowledge/elements: Payroll statutory theory (Statutory Payments and Deductions etc.), RTI, BACs, G2N Engine, Payslip and Reports.
- Built one of the flagship products for Webroster.net, a new and improved ECM software called Alert Manager V3. Utilises: JSON, Webmethods, dynamic UI design with statistics, charts and nested client-side filtering. (Currently live and used by thousands of users)
- Webroster.net (main rostering platform) Development
- (ASP.NET (C#) MVC Support Web Application, Disaster Recovery, MailChimp API, Options Manager, Padrino SMS Web Application, Python VOIP application and API on TrixBox, Webroster PowerShell installation script, scripts to test JSON RESTful API, other various automation scripts) – all utilising cron jobs and scheduled tasks.
  (New VOIP application live since 2015 and used by thousands of users)
- Linux and Windows administration, AWS, Azure, Linked Servers, Axigen, Subversion, Zabbix, Trixbox, 3CX, Apache2, Nginx, MiniServ, ChilliSpot, FreeRadius, VOIP STATS, IP Phone local and remote provisioning (Cisco and Linksys), AD Directory, LDAP Server, Domain Controller, SharePoint, DNS, Networking (routers, switches), Firewalls, (Pfsense, WatchGuard), Captive Portal, FTP Servers, Hyper-V, Proxmox VE, SSL Certificates, OpenSSL, OpenSSH, Webroster installations, ISO Processes.
- *Internal penetration Tester at Webroster Ltd*: Kali (Kismet, NetStumbler, dnsmap, Nikto, DirBuster, nmap, sqlmap, MSF, ZAP, BeEF)

11.2012 – 06.2013 Software Engineer (contract) working for Apex Consulting International Inc
Built an ASP.NET (C#) MVC Reporting and Recording System; wrote unit tests; built a website utilising SVG animation

05.2011– 03.2012 Quality Assurance Tester and Web Developer at Cambridge Assessment
Carried out migration from the old LMS to the new one (called Metrica) as well as stress, load, performance and scenario testing; made improvements to Metrica's existing Java Applet system by integrating MathML; automated Network Admin functions; wrote automation scripts for document production; built and launched the Cambridge ESOL global website http://www.cambridgeesol.org (2-member team)

07.2010 – 01.2011 Software Engineer (contract) at Land Rover
Designed and built a LAMP-based Inventory Management System

02.2010 – 07.2010	Lecturer at HITEC University Taught Communication Systems and Digital Logic Design to 3rd year undergraduate students
10.2009 – 01.2010	Research Engineer (contract) at LUMS Implemented a power aware video codec on a TI DSP board
07.2008 – 09.2008	Design Engineer (contract) at Intel UK Wrote automation scripts and synthesisable test benches to test a DVB chip decoder.
06.2007 – 09.2007	Design Engineer (contract) at hurleypalmerflatt Carried out building load calculations, cable sizing, lighting and fire alarm design
07.2006 – 09.2006	Design Engineer (contract) at Motorola Carried out GSM RF optimisation, Neighbourhood Auditing and Drive Testing

PROJECTS

2012 – 2013	Designed a bespoke 3D file format and parser using the Quake 3 Engine; created new shaders, models, textures.
2009	Demonstrated EEG signal reconstruction from sparse (sub-Nyquist) measurements using Finite Rate of Innovation (FRI); completed an image super-resolution project based on FRI and Wavelets
2008	Lead a team in building a real-time dog bark identification software on a TI DSP board – product identifies dog breeds using ML (K-Means, GMMs) and MFCCs via barks to eliminate nuisance barking in neighbourhoods by serving as potential evidence for local city councils; project was one of the best group projects of the year and nominated by the Project Supervisor to be demonstrated on the Imperial website in the form of a video podcast; completed a speech enhancement (noise-removal) project using Real-Time DSP; completed a real-time video rotation project that employs a synthesisable implementation of CORDIC
2007	Designed and ‘synthesised’ a Vector Display Processor; designed and built a Clock Radio with a PLL block for synchronous demodulation; wrote a ‘gate-level’ logic simulator

EDUCATION

1999 – 2002	Roots Montessori & High School O-level Passes in Maths(A), Physics(A), Chemistry(A), Biology(A) and English(B)
2002 – 2004	Roots Montessori & High School A-level Passes in Maths(A), Physics(A), Chemistry(A) and Biology(C)
2005 – 2009	MEng (Electrical and Electronic), 2nd class Honours Degree Imperial College London Subjects: Software Engineering: Algorithms and Data Structures, Analogue and Digital Communications, Analogue Electronics, Analogue Integrated Circuits and Systems, Digital System Design and Signal Processing subjects (DSP, Speech, Wavelets, Image, Adaptive)

MEMBERSHIPS

Member, IEEE
Associateship of the City & Guilds of London Institute (ACGI)

REFERENCES

Available on request

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