

# Habeeb Mohamed

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- **Eligibility to work in UK:** Possess a TIER 2 Partner Visa (Sponsorship NOT required)
- **Email Address:** [habeeb87mohamed@gmail.com](mailto:habeeb87mohamed@gmail.com)
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## SUMMARY OF QUALIFICATIONS

- Software Developer with 3 years of industrial experience working on Linux based embedded systems using C and C++, having undergone 2 full Software Development Life Cycles (SDLC)
- Extensively experienced working on Real Time and Non-Real Time Operating Systems (N)RTOS
- Successfully led a small team of test engineers for software validation of safety critical devices
- Excellent hardware and software troubleshooting skills of both desktops and notebooks
- Out of the box thinker with a keen interest in designing & producing efficient modern softwares, and receptive to learning new technologies and tools if the need arises

## PROFESSIONAL EXPERIENCE

### **Bombardier Transportation UK Ltd (Derbyshire)**

Oct 16 - Present

*TCMS Software Engineer, CrossRail Project (CL345)*

- Testing and commissioning of Aventura platform for CrossRail project
- Focal technical point of contact for automation test tools, automation tooling libraries and automation process
- Maintenance and development of testing tools using C# and .Net framework

### **Bombardier Transportation Singapore Pte Ltd**

July 15 – Sept 16

*Agile Software Developer (CTO/TCMS), Modular IP Platform (MIPP project)*

- Worked in a distributed software development environment producing a modular IP platform to be deployed on various devices such as HMI, VCU-C, MCG, Doors and HVAC
- Developed various software modules with C & C++ in a Linux based environment (Ubuntu) using Qt framework for the build process and Tortoise SVN as the version control
- Improved platform operating efficiency by 50% with memory managed multi-threading
- Worked with Jenkins to automate build processes triggered by commits from SVN
- Developed design solutions using SOLID Object Oriented principles and coding standards conforming to MISRA
- Modeled and developed software design requirements using Enterprise Architect and UML modeling language
- Produced excellent Software Test Plans conforming to IEEE 1558 documentation standards
- Successfully executed full-coverage unit testing using Google testing framework
- Wrote test libraries using C# and .Net framework to automate integration testing in Visual Studio
- Wrote and maintained web pages for Portable Test Equipment using JavaScript, HTML, CSS and SQL
- Worked in an Agile development model using Scrum methodology and JIRA as the storyboard
- Wrote Linux shell scripts to provide OS services for the platform thereby abstracting dependencies

### **Bombardier Transportation (Holdings) Singapore Pte Ltd**

June 13 – June 15

*TCMS Software Engineer / Rolling Stock Engineer, Singapore Downtown Line Project (SDTL)*

- Supported and successfully executed vehicle testing for MOVIA trains used in S-DTL
- Executed and developed CCU-O software changes for S-DTL using source control tools such as ClearCase, change management tools such as ClearQuest and development tools using the custom built MITRAC tool suite (IEC 61131-3 standard)
- Lead lab tester during the period of software takeover from the German counterparts and successfully lead the software validation team during this transition
- Modeled software requirements and test specifications using Java in Enterprise Architect
- Successfully wrote and executed lab test specifications and vehicle test specifications for each delta validation
- Followed the V-model development cycle
- Provided system and integration support for train type tests and test running
- Provided trainings to the customer on special tools used in S-DTL such as Go-NoGo unit and interfaced with our Indian counterparts

*Computer and Monitor Panel Technician (Part time)*

- Hardware Troubleshooting: Serviced processor(s) of all generations – Intel Pentium 386 to Intel i-Series
- Troubleshooting of all models of Motherboard(s) at peripheral level for desktops and laptops
- Troubleshooting and repairing CRT and LCD monitor panels
- Software Troubleshooting and Operating System Installations

**EDUCATION****University Of Madras (Institute of Distance Education)**

Aug 13 – May 15

- Master of Business Administration (Financial Management)
- Capstone project: Attained a distinction for the topic of “*A study on the importance of working capital in running a successful business without financial crisis*”

**National University of Singapore (NUS)**

Aug 10 – June 13

- Bachelor of Engineering (Computer Engineering)

**Singapore Polytechnic (SP)**

Jul 04 – Dec 06

- Diploma in Electronics, Computer and Communications Eng. (D.E.C.C) with a specialization in Biomedical Engineering and a score of 3.6/4.0

**ACADEMIC PROJECTS****Software Controlled AR Drone, Final Year Project, NUS**

Aug 12 – Apr 13

*Communications Framework and Visualization*

- Attained a distinction for the project (Windows socket programming using C++)
- Deployed a private secured network to link the UAV's (AR Drone) with various user controllers
- Constructed a private multi-client supported server for control switching among clients within the network
- Performed image processing in Java and JavaScript to achieve scene visualization such as real-time map building and barcode scanning

**CEG Hypermarket, NUS**

Aug – Dec 13

- Applied the CDIO (MIT initiative) workflow model to build a fully autonomous Point of Sale Cashier System with an automated Remote Database Interaction Server and Multi-Drop RS-232 Serial communication framework written in PHP and SQL
- Supervised the team with website development for product transactions using HTML, CSS and SQL.

**Game World Mechanics, NUS**

Jan – Apr 13

*Worked and developed 3 different online games in 3 months*

- Programmed online games with differing themes such as physics stimulation, game AI and world stimulation
- Held team leader position on 2 occasions and directed Artificial Intelligence in games
- Programmed the physics and rendering engine from scratch using JavaScript, CSS and HTML with Git and Tortoise Mercurial as version control

**TECHNICAL SKILLS****High-level Application Programming**

- C, C++, Java, JavaScript, Visual Basic .Net, PHP, HTML5, MYSQL (Basic)

**Low-level Hardware Programming**

- ASM, Real-time embedded systems programming with POSIX threads, VHDL programming, ARM, Socket Programming with Windows

**Embedded Systems Programming and Tools**

- MTPE, IEC61131-3 automation language, Shell scripting for Unix environments, Batch programming for Windows environment, Qt for C++, RtSim with Java

**Design and Development Tools**

- Microsoft Visual Studio, Eclipse, Netbeans, Xilinx, Aptana Studio, WebStorm, MAM & XAMPP, Visual Basic Studio, Microsoft Photosynth, Adobe Photoshop, Adobe Dreamweaver, Matlab, Paralles, AutoCAD
- IBM Rational ClearCase & ClearQuest, DCUTerm, Generic Database Management, Enterprise Architecture, VmWare Player, VirtualBox, TDS Uploader, FileZilla, Qt Designer and Creator

## **ADDITIONAL INFORMATION**

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- Fluent in English and Tamil
- Possess a Singapore Class 3 international driving license
- Excellent in using Windows Office Products
- Interested in playing soccer, basketball, computer games, reading books and watching movies