

C++ Developer C++ Developer Software Engineer with networking experience Cumming, GA

Experienced software developer with over 15 years experience in a variety of industries including defense, avionics and payment systems. Expert in C++ and experience in Java, Python and several scripting languages. Experienced from high level GUI work to low level embedded systems on multiple platforms including Windows, Linux and proprietary real time OSes. A passion for research in new technologies particularly relating to networking and protocols. Authorized to work in the US for any employer

Work Experience C++ Developer IBM - Atlanta, GA July 2019 to Present Part of small IBM squad providing value to NCR's Silver Restaurant product. This is a mobile application that runs on both iOS and Android platforms natively with a shared C++ core library. The core C++ library incorporates the latest features in C++ up to and including C++17. The iOS component combines Objective C and C++, while the Android component utilises Java. Senior Software Engineer Ingenico group - Alpharetta, GA July 2015 to May 2019 Added new features to embedded software in credit card readers/pinpads to allow payment processing. Local expert on unattended devices and have added several customer specific features. Became familiar with EMV and PCI standards. Software was a multithreaded application written in C++11 and included extensive use of STL containers and algorithms, with limited memory and processing resources. Application Services Consultant NCR - Duluth, GA December 2012 to July 2015 Added customer specific customizations to Advanced Checkout Solution (ACS) point of sale software including configuration, code and user interface changes. Tasks include: adding a new Starbucks tender type, adding functionality to support a tablet PC, creating transaction barcodes and creating digital receipts. Software Engineer Watermark Medical Inc - Atlanta, GA September 2012 to November 2012 Analyzed requirements and source code for recently acquired medical device for the detection of sleep apnea. Consulted with original developers and in house engineers to determine and document required functionality and to develop plan for code rewrite. Sr. Software Engineer CAMotion - Atlanta, GA August 2011 to June 2012 Worked on software written in C++ and Python that controlled industrial automation machines. Tasks included: porting code from Linux to Windows, integrating Ethernet/IP code and integrating Matlab based trajectory generator. Software Engineer

Rockwell Collins - Cedar Rapids, IA October 2007 to April 2011 Part of a small development team that created SysGen written in C++ that ran on Windows and Linux - a network configuration tool that is used by system integrators to create aircraft configurations and validate that no application timing or bandwidth requirements are violated. Development included requirements capture, implementation, verification and code coverage analysis, linkmap analysis and traceability. Updated Python and gdb test scripts as necessary. Created bash shell scripts to help configure builds and control automated testing. Led the FAA certification of SysGen to DO-178B Design Assurance Level A, the highest FAA safety level for avionics software. Contributed to testing and verification of ESBIN, a tool that created binary configuration files for end systems within an aircraft that ran on both Solaris and Windows. Member of Datalink team responsible for updates and adding functionality to Radio Interface Unit software. Worked with Systems Engineers and Verification Engineers to ensure implementation met requirements. Software Engineer QinetiQ February 2002 to July 2005 Part of a software engineering team that designed, developed and tested the Large Network Emulator (LNE) software written in C and C++. The LNE was able to emulate the characteristics of future military networks such as bandwidth, error rates and latency, and allowed application developers to test their applications on realistic emulations of future networks before they were in service. Supported the LNE when it was used as part of the bid selection process for the Defence Information Infrastructure - a multi-billion pound secure military network used by the British Armed Forces. Research into providing secure voice in multiple different network types that provided the British military and government a roadmap for future requirements and infrastructure required.

Education Master of Science in Computer Science Georgia Institute of Technology - Atlanta, GA August 2005 to May 2007 Bachelor of Science in programming and computer networking De Montfort University 1997 to 2001 Skills C/C++, TCP/IP, Windows, Linux, DO-178B Additional Information Skills: Software MS Visual Studio KDevelop gcc/gdb Eclipse IDE Wireshark DOORS ClearCase ClearQuest JIRA Subversion MKS Lint CppUnit VectorCast Bullseye Languages: C C++ Java Python Shell scripting SQL Visual Basic OS: Linux/UNIX Windows Vista/XP Concepts: DO-178B ARINC 429 ARINC 739 AFDX TCP/IP Sockets Threads

Interprocess Communication Agile Frameworks: MFC Swing GTK Protocols: BGP RIP
OSPF AODV SMTP SIP H.323

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