Craig Hamilton

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Summary

I am a software engineer with 15+ years of experience in architecting and developing solutions targeting embedded, desktop, and server platforms. My experience ranges across many programming languages and development disciplines. I work equally well in team environments or in an autonomous capacity. I am creative and innovative about what can be created through software development. I am that person that gets up to speed fast and provides durable solutions.

Skills

3+ years of Rust development	15+ years in embedded systems development
15+ years of C/C++	7+ years developing big data distributed systems
10+ years of Python development	2+ years of GoLang development.
15+ years of SQL (SQLite, MsSQL, Oracle, JET)	3+ years of AWS/Cloud Computing development
15+ years developing for Linux, Windows, macOS	Linux kernel and Window driver development
Network protocol experience (TCP/IP, I2C, x10, USB)	Worked with ARM, X86_64, Atmel AVR, 8051

Experience

Cadence   *May 2016 to Present*

Position: Sr Principal Software Engineer/Software Architect

○ Architect and lead of a 3 person team to create a distributed query system using Rust, GoLang, C++20, Apache Arrow, and GraphQL.
○ Consolidated conflicting name management implementations in Voltus using Rust where performance and minimal dependencies were critical.
○ Created a native Rust library for the Voltus/Atlas distributed data service enabling solutions in more minimal dependency areas.
○ Created a monitoring API using Rust that returns system and product usage for hardware resources for the Cadence Atlas multi-node system.
○ Used the Rust language to produce C, Rust, Python, and WebAssembly libraries to interface with the monitoring API.
○ Architected and developed logging, networking, and flow-building solutions for a distributed map/reduce ecosystem(Atlas) using a mix of C++ 11/17/20, Python3, Typescript, and Rust. This ecosystem is used by Voltus and other Cadence Products.
○ Architected and developed a C++17 library for storing Voltus big data using Apache Arrow.
○ Worked with the Cadence InfoSec team in developing company-wide integrations and policies for secure GitHub usage
○ Designed, developed, and integrated the Clarity product as a cloud application using AWS and Docker.

IBM   *November 2015 to May 2016*

Position: Software Engineer

○ Used C++11 and Perl to create memory controller firmware and tools for the OpenPower 9 Systems.

Ticom Geomatics Inc.   *October 2012 to October 2015*

Position: Senior Software Engineer

○ Used C++11, Boost 1.58, AMQP, and ZeroMQ libraries to create a next-generation sensor platform.
○ Used Python, Javascript, and Node.JS to create a sensor calibration system.

Kohler Power   *May 2012 to September 2012*
Position: Consultant for AWI Staffing
- Architect of a new Kohler Power generators embedded controllers firmware using design patterns/C++.
- Used XMPP to create a flexible and robust Client/Server design in Java/C++.

Palm, Inc. / Hewlett-Packard   *April 2005 to May 2012*
Position: Technical Manager/ Senior Software Engineer
- Architect and implementer of the VPN framework for the webOS platform using C++/JavaScript/SQL.
- Created the webOS connection management middleware using C++ and supported the public SDK API.
- Developed captive portal and dead networks detection algorithms unique to webOS using C++/JavaScript.
- Created a GPS hardware abstraction for Palm's Windows Mobile and Linux devices using C/C++.
- Created the initial webOS Wifi, and Device Info applications using JavaScript.
- Managed a 4 person team responsible for the VPN framework, firewall, and routing on webOS.

Sparton Electronics Medical Solutions   *February 2003 to April 2005*
Position: Senior Software Engineer
- Created bare metal application for a rapid blood infusion pump using C++ for the Atmel Atmega128 AVR.
- Created a Linux distribution and developed system software and drivers in C/C++ using GCC for the Sharp LH7 ARM processor to drive a gynecological incontinence diagnostic tool.
- Team lead for all software design and development efforts for medical devices following FDA guidelines.
- Created project schedules and managed software resources to bring the projects in on time and budget.

SAT Corporation   *December 2001 to December 2002*
Position: Senior Software Engineer
- Responsible for the design and development of the PocketPC client software for IntelaTrac 2.x/3.0 releases.
- Worked extensively with ADO.NET, Winforms, Remoting, and ASP.NET web services .NET technologies.
- Developed IntelaTrac solutions for the Symbol 8100/2800(Windows CE) and Symbol 2234 (Windows 95) devices using C++.

SMSC   *August 2000 to April 2001*
Position: Consultant for System Pros
- Developed VHDL virtual devices using C for chip synthesis of a southbridge controller.

Symbol Technologies   *June 1998 to June 2000*
Position: Consultant for System Pros / InVision Software
- Brought up PocketPC 3.0 OS on the Symbol 2700 bar code scanner platform.
- Developed software library SDK and driver for the Symbol Palm OS Handspring bar code scanning module.
- Worked with Symbol Technologies to develop GSM/Tetra SMS applications for London's police force.
- Developed Windows Mobile RFID Driver software for Symbol devices.

*** For additional history see my linked profile: linkedin.com/in/craig-hamilton-b6b16b21

Patents
- I currently have invented or been listed as a co-inventor on 14 Patents that have been filed by Palm, Inc. with the US Patent office and/or European Patent Office. 2 Patent has been granted.

Special Awards

Eagle Scout Award: I earned the BSA Eagle Scout award by excelling in the areas of leadership communication and intelligence.