

Objective

Seasoned software engineering leader with 25 years of industry experience including: system architecture, distributed computing, cloud services, and AI-driven development. Passionate about building high-performance teams, optimizing large-scale systems, and delivering innovative solutions. Seeking a senior leadership role to drive engineering excellence and strategic growth in a cutting-edge tech environment

Summary

- Extensive experience in Restful APIs, software architecture, SOLID principles, and project management
- Extensive experience developing in AWS, Google Cloud, Facebook APIs, and other cloud services
- Led engineering teams to deliver production-grade software using TDD and Agile methodologies
- Early adopter of AI Driven Software Development using Claude, Grok and Gemini models
- Pioneering AI Music and Art creation by integrating Suno, Kling and Helio AI web services

Employment Experience

Agree Media, San Diego, California (8/2020 - 8/2024)

Senior Software Developer

Delivered production software to implement business requirements for backend distributed .Net / C# services executing on multiple AWS ECS instances with a particular emphasis on SQL DB performance at large scale. Designed new features which improved Return on Ad Spend (ROAS) by 30%, eliminated conversion tracking discrepancies on the Google, Facebook and Bing Ads platforms and optimized projected value by modelling dynamic sales and projected revenue. Maintained front-end Vue.js/Nuxt.js code and ensured compliance with relevant industry standards. Mentored off-shore Junior Engineers.

Research In Motion (RIM), San Diego, California (1/2012 – 8/2013)

Senior Embedded Firmware Engineer, QCT Group

Responsible for bring-up of Blackberry 10 Operating System on prototype ARM based SoC platform. Developed and customized low-level components for new hardware platforms including BSP, BootRom and USB Device Driver code built on top of the QNX Real-Time Operating System. Provided in-depth developer support to Qualcomm engineers. Performed root-cause debugging of issues that adversely affected the end-user experience with smartphone devices.

Novatel Wireless, San Diego, California (4/2007 – 9/2008)

Software Design Engineer, Windows Software Group

Developed key software components of wireless broadband (3G/4G) solutions for the Windows platform with a heavy emphasis on kernel-mode drivers and embedded systems, including NDIS and USB drivers. Architected, developed and maintained Windows kernel-mode drivers and associated user-mode software using the Windows Driver Model (WDM) and Win32 platforms.

Microsoft Corporation, Redmond, Washington (6/1999 – 11/2005)

Software Design Engineer Lead, Windows Device Group, Microsoft (1/2003 - 11/2005)

Led a team of 7 developers and 30 testers in verifying mission-critical Windows OS components, developing advanced device driver tools, and designing WHQL certification tests. Spearheaded quality assurance for USB, IEEE-1394, and Bluetooth technologies, ensuring seamless integration across Windows 2000, XP, Server 2003,

and Vista. Defined and enforced test sign-off criteria, improving hardware compatibility and system stability. Fostered key industry partnerships and drove cross-functional collaboration to enhance Windows device support and ecosystem reliability.

Software Design Engineer, Windows Device Group, Microsoft (6/1999 - 1/2003)

Developed software verification tools for the Firewire (IEEE-1394) Device Driver Stack and Windows Operating System, as well as component tests used by the Windows Hardware Quality Labs (WHQL) for hardware validation of devices for the Use with Windows Logo program. Wrote sample code for the Windows Driver Development Kit (DDK) to demonstrate user-mode access to kernel-mode device driver interfaces. Developed software using Win32 and .NET platforms as well as the Windows Driver Model (WDM) and Windows Device Frameworks (WDF).

Independent Software Consultant (Key Projects)

TechAround, San Diego, California (10/2014 - 1/2019)

Full stack-web developer. Developed and maintained custom websites for a variety of small businesses, primarily using PHP, Javascript and MySQL technologies and a variety of platforms, including Laravel, WordPress, WHMCS, and Node.js. Implemented custom ordering and processing logic, credit-card processing integrations and document management features as driven by customer request.

Foresight Sports, San Diego, California (11/2015 - 6/2016)

Embedded Software Consultant. Implemented Media Transfer Protocol (MTP) on Embedded ARM TI RTOS based Device operating over USB and Bluetooth in Embedded C code. Successfully submitted Windows 10 Device Driver Package for certification and fixed several issues with existing Win32 application layer software.

BitKibble, San Diego, California (2/2015 - 12/2015)

Developed Windows Service (Win32 API and C / C++) and Kernel-Mode Drivers (WDM and WDF) to monitor system state and inject data into network traffic in order to monetize Ad networks. Responsible for maintenance of existing software as well as development of proof-of-concept features for new versions.

Samsung Semiconductor, Irvine, California (6/2014 - 9/2014)

Optimized image processing firmware on an embedded Linux device using Android SDK/NDK C and optimized Arm Assembly, achieving a 4x performance boost ahead of anticipated schedule.

Chelsio Communications, Sunnyvale, California (9/2009 - 3/2010)

Designed and Developed proof-of-concept Windows NDIS Miniport Driver and Virtual Bus Driver for a prototype 1Gb Network Interface Controller used in server virtualization using the Windows Driver Framework (WDF). Managed technical contact between Microsoft Windows NDIS team and overseas developers.

InterKnowlogy, Carlsbad, California (8/2011- 12/2011)

Refactored USB-based handheld GPS software and web applications in C# / Asp.Net and Windows Device Manager extension in C++ / Win32 API to resolve critical stability issues and performance bottlenecks. Extensive debugging and root-causing of problematic code.

Education

Case Western Reserve University, Cleveland Ohio (7/1995 – 5/1999)

Bachelor's Degree in Computer Engineering, *Magna Cum Laude* (Dean's List 6/7 Semesters)

Language Skills

Native speaker of English and Hindi; Fluent Spanish; Conversational Portuguese; Basic Thai