

Jeffrey D. Bonsteel

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OBJECTIVE **Software Architecture, Interfaces and Protocols**

Apply talents across a broad range of environments to design and implement system software interfaces and protocols. Architect and build software to combine diverse hardware and software components to create reliable infrastructures for leading edge products.

QUALIFICATIONS

- System Software Architecture
- IDS/IPS Firewall Enabling
- Network Security Software
- Software Reverse Engineering
- NDIS/TDI/WFP Device Drivers
- Multi Threaded Systems
- Technical Writing
- Kernel Level Design and Programming

SELECTED ACHIEVEMENTS

Invented software mechanisms that interact with operating system structures and code to block outgoing network packets based on the originating processes and their assigned permission parameters. This software is commercially available as the McAfee Personal Firewall with millions of users worldwide.

Built system network code for translation of an OS/2 remote access product to run in the Windows environment. Replicated low level communication functionality with Windows network and serial communication architecture and interfaces.

Rebuilt network operating system to reduce main memory usage. Re-worked architecture including writing custom software to optimize usage of available memory space. Used little known trick to put a piece of code into un-addressable space.

Conceived and built a pioneering emulator in MSDOS to mimic the behavior of a polled terminal, thought by skeptics to be impossible. Devised the terminal control software and invented a hardware adapter to prevent signal contention for these terminals. Team won company quarterly award for excellence for terminal emulator product line.

Integrated and wrote components to build a scripting language tool for isolation of communication details from an application program. Developed a library and set of programs that functioned across a variety of UNIX operating system flavors. Still in use 9+ years later as a development productivity tool.

Directed from inception the development of software to manage PC based product access to database information on legacy UNIX system. Designed and implemented TCP/IP client-server solution defining architecture for all protocols and interface mechanisms. Technology facilitated early steps in migration from UNIX to PC technology for application systems.

PROFESSIONAL EXPERIENCE

Software Engineer /Owner - the Majik Bocks Institute, LLC, Dayton, Ohio, 1999 - Present

- Independent consultant providing tactical Windows network system internals software engineering and integration projects. Focus on design and implementation of network device drivers (NDIS/TDI), firewalls, security, encryption, interface and protocol reverse engineering and network software tools. Clients were based worldwide. Work ~100% from Dayton office.

Tools Manager, CyberTrust Corporation, Herndon, Virginia, 2004-2005

- Coordination of offshore team developing internal technology and tools. Projects include Linux based network scanning control and assessment tools and Windows desktop risk assessment scanning tools. (Telecommute)

Software Engineer, McAfee , Dayton, OH, 2002-2004

- Responsible for enhancement and maintenance of Device Driver components of the McAfee Personal Firewall and Privacy Products. Duties included WHQL certification compliance and XP/SP2 modifications.

Staff Engineer, Stampede Technologies, Dayton, Ohio, 1995 - 1999

- Design and implement custom protocols compliant with RFC specifications. Reverse engineered interfaces and developed drivers for Windows NT and Windows 9x.
- Built serial communication device driver emulator for porting Windows 95 VxD driver code to Windows NT. Created API's and protocol designs for inter/intra program communications. Built 32-16 Bit Winsock Thunking Layer.

Programmer/Analyst IV, Reynolds and Reynolds, Dayton, Ohio, 1993 - 1995

- Executed performance analysis and modeling project to improve program execution speed and efficiency. Designed and implemented server and client integration components for major customer's application databases.
- Designed and built tools for abstraction of communication functions for programmer isolation from communication mechanism details.

Senior Software Engineer, 10NET Corporation, Dayton, Ohio, 1988 - 1993

- Key contributor for development of 10NET LAN Operating System, protocol design, inter program communication, analysis and testing tools, security, reverse engineering, and design of fault tolerant server components.

EDUCATION

Bachelor of Science, pre-Engineering Physics, MIAMI UNIVERSITY, Oxford, Ohio

SELECTED PROFICIENCIES

Languages: Visual C/C++, Intel Assembler, Java , C# .NET

Protocols/Interfaces/Environments: Agile Software Development, TCP/IP, PPP, SNMP, Winsock, NDIS/TDI, SDK, DDK, WFP, MS Developers Studio 2008, Linux and WINDBG