

Rich A. Marino | Software Engineer

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Skillset

- Passionate, personable technologist and engineer. Quick learner, problem solver, and thrives in high-stakes environment.
- Very passionate about making things run as fast and reliably as possible.
- Specialties in networking, virtualization, and operating systems, both with respect to development and implementation.
- Expertise in both Windows and Unix environments, heavy professional user of C, C++, C#.

Professional Experience

D.E. Shaw & Co.

(August 2018 -)

- Significantly revamped monitoring infrastructure
 - Implemented Telegraf, Prometheus, and Grafana from the ground up on both Windows and Linux.
 - Implemented Microsoft System Center Operations Manager (SCOM) from the ground up for monitoring Microsoft SQL Servers.
 - Utilized SNMP and IPMI to allow for out-of-band monitoring of server hardware and network devices.
- Contributed to a high-level ops rotation administering Windows and Linux systems, as well as network infrastructure.
- Implemented and administered various third-party applications from the ground up including GitHub Enterprise.
- Developed low level tooling to investigate Windows driver memory bugs. (C)
- Contributed significant expertise to developing a secure and segregated Linux and Windows computing environment for a new office in China.

Acuity Brands Lighting

(March 2017 - August 2018)

- Designed and built an API to allow efficient access to commercial lighting controlled by the nLight protocol. (C++, C)
- Contributed expertise towards integration of a new wireless nLight product into the existing platform. (C#)
- Rebuilt a critical build server, which resolved significant delays and improved development efficiency. (VSTS)

Microsoft

(May 2015 - Nov 2016)

Windows Fresh Start

(Dec 2015 - Nov 2016)

- Designed and built a Windows feature that can quickly clean a PC of all software while keeping drivers and files. (C, C#, C++)
- Implemented various graphic user interface (GUI) components. (C#)

Windows Networking

(May 2015 - Dec 2015)

- Led bug fixes across an enormous codebase (Windows) while in charge of maintaining VPN, Enterprise Wi-Fi, and Ethernet features.
- Utilized big data analysis expertise to answer business questions. (SQL, internal technology)
- Designed test software for Hyper-V Software Defined Networking Quality of Service. (Hyper-V, TCP/UDP, C/C++)

Microsoft Intern Program (May 2014 - August 2014) - Windows Networking

- Developed a Cloud Platform System (Azure Stack) orchestration and management client, utilizing REST/JSON.
- Contributed to Windows NDIS source code, wrote the first network driver for Windows 10 (C)

Microsoft Intern Program (May 2013 - August 2013) - Windows Networking

- Developed a UDP NAT (Network Address Translator) and Router. (C, C#)

Microsoft Intern Program (May 2012 - August 2012) - Windows Networking

- Designed and developed an automated test system for Connected Standby low power mode. (C)

Hackathon Projects

WubLink

- Developed backend for an app that allows crowd interaction with a live DJ that authenticates via and audio watermark.

Ultimate Party Playlist

- Web app that analyzed Facebook friends at an event, then created RDIO playlist based on collective interests.

GoToEvent

- Web App that allowed sending and tracking of event invitations via E-Mail, SMS, and telephone calls via Twilio.

Independent and University Projects

Hidden DNS Services

- Wrote an authoritative DNS server that allowed for both normal lookups and steganographic traffic tunneling and data exfiltration.
- Also provides access to the current Drudge Report home page as TXT records.

Performant PHP Web Server

- A full, high-performance web server written in PHP.
- Also developed a virtual appliance for securely running a Deep Web Site / Tor Hidden Site.

High Performance University CMS and style sheet (2010-2014)

- Built a content management system to facilitate user uploaded and designed web pages by untrusted parties.

Near Field File Sharing

- Developed software to facilitate quick and easy sharing of files between physically near computers via UDP Multicast or Internet.
- Conducted extensive research into platform-agnostic zero-config communication.

Other Experience and Awards

UHACK 2014 - 2nd Place Winner: Ultimate Party Playlist

UHACK 2012 - Best Use of Twilio: GoToEvent

Engineering Advisory Board (University of Miami), Director of Technology (Jan 2011 - May 2014)

Education

University of Miami (Miami, FL)

2010 - 2014, Computer Software Engineering/Computer Science

Awards: Dickinson Scholarship.