

John Manero

Software Engineer

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Seeking new challenges in distributed system design, platform engineering,
deployment automation, and software-defined rocking of worlds☑

🔗 [jmanero](#)
in [johnmanero](#)

Relevant Skills

Languages

JavaScript Ruby HTML CSS
Java C++ Perl Bash

Tools

Chef Git Vagrant apt
Ubuntu Linux FreeBSD
Amazon Web Services

Applications and Services

DNS BIND9 HTTP
LVS/keepalived PXE libvirt KVM

Employment

Dyn Inc.

Software Engineer, Infrastructure and Automation

Summer 2012 — Present

China POP Project

Designed and implemented a fully automated deployment of authoritative DNS resolver clusters on third party hosting in China with Chef on an initial three-month customer deadline. DNS server instances discover respective masters and slaves, negotiate secure exchange of shared keys via the cluster's local Chef Server, and auto-join LVS load-balancing groups. Clusters are designed with minimal external dependencies to ensure availability when infrastructure outside of China is unreachable.

August 2013 — May 2014

Infrastructure Automation Team

Currently work with engineering and operations team members to develop and maintain Chef cookbooks, manage the deployment pipeline for cookbook artifacts, and implement tooling for virtual and physical compute provisioning.

June 2013 — Present

Performance and Optimization Team, DNS

Worked with a team of six to identify and repair faults in and improve the performance of systems that comprise the DynECT DNS platform.

June 2012 — June 2013

Dyn Inc. (Intern)

Re-implementation of an Out-of-Date Service with 10x Load Tolerance

Responsible for development and load testing of product, including work with Perl, JavaScript, and MySQL. Final revision sustained 10,000 connection/second loads on BSD test platforms. Gained experience in professional programming, code management, and documentation.

Summer 2011

Bauer Hockey (Intern)

Company-wide Automated Upgrade of the Microsoft Office Suite☑

Responsible for planning and execution of compatibility testing for Office 2007 applications with in-place☑ mission critical business software while coordinating roll-out efforts with IT contractors. Gained valuable☑ experience in project planning, and risk identification.☑

Summer 2009

Education

Worcester Polytechnic Institute

Worcester, Massachusetts
Bachelor of Science in Electrical and Computer Engineering
Minor in Computer Science

Fall 2008 — Spring 2012

Major Qualifying Project

Automation of Multiple Energy Source Heating Systems

Team of three Electrical and Computer Engineering students created a distributed control plane for multiple energy source heating systems. Platform ran on Linux, using HTTP over TCP/IP to manage embedded sensors and controls. Report is available at <http://www.wpi.edu/Pubs/E-project/Available/E-project-010612-005154>

September 2011 — January 2012

Software Defined Radio Systems☑

Implementation of an Ad-hoc Wireless Mesh Network

Developed a communication protocol in Simulink and MATLAB environments to transmit and receive data using a USRP2 software-defined radio device. Project included implementation of☑ carrier acquisition, frame synchronization, development of half-duplex communication techniques, and handshaking and error correction techniques.

January 2011 — March 2011

Activities

In addition to long walks on the beach and Peña Coladas, I enjoy sailing and skiing in their respective seasons. I skied competitively for four years, and currently crew on a J-24 that sails out of Portsmouth, New Hampshire.

Lambda Chi Alpha Fraternity

Member 2008 — Present
House Manager 2011 — 2012

PADI Scuba Certified☑

2007 — Present