

# Spencer Julian

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## Experience

### Purdue University, West Lafayette, IN

- January 2013 - Present **HPC Administrator, IT Infrastructure Systems.**
- Administer backend infrastructure for internal use.
  - Work with colleagues to build and maintain high performance computing resources.
  - Develop and maintain systems devoted to monitoring HPC resources.
- October 2009 - January 2013 **Student Developer, Technical Assistance Program.**
- Designed and developed static and database enabled websites and applications in ASP.NET for public and internal use.
  - Updated and improved websites and applications with colleagues on a regular basis and by request.

## Projects

### Purdue University IT Infrastructure Systems

- October 2015 - Present **Docker Infrastructure Design and Development Project.**
- Designed a full, highly redundant, software as a service environment based on Docker and CoreOS.
  - Started leading development for new front and back end services as containers for the software as a service environment.
  - Built several unique example services, including an autoscaling computational cluster and an autoscaling web cluster.
- May 2015 **Rice Build and Installation.**
- Developed new installation infrastructure and configured automated installation of nearly 600 node supercomputer.
  - Managed installation team and installed majority of machines in less than one business day.
  - Configured and tested Infiniband fabric and 10 Gigabit Ethernet Network on cluster.
- August 2013 **Monitoring systems overhaul.**
- Researched various metrics gathering and monitoring systems to replace an outdated Nagios installation.
  - Developed handlers and alerts for SNMP-based and message queue-based systems using OpenNMS and Sensu.
  - Worked with various organizational groups to ensure the monitoring system handles appropriate situations.

### Purdue University Student Projects

- Fall 2012 **Dual Core MIPS Processor, ECE 437 - Introduction to Digital Computer Design and Prototyping.**
- Designed and developed a dual core MIPS processor using Verilog from basic requirements.
  - Worked with teammate to build individual processor blocks, test functionality, and document the processor
  - Implemented design on FPGA and gathered statistics on design performance.

## Skills

Platforms: Windows, Red Hat Enterprise Linux, Ubuntu, CoreOS, Hyper-V, DigitalOcean, AWS, Cloudflare  
Languages: Python, Bash, C, Ruby  
Software: Git, Vim, Docker, Apache, Nginx, Vim, Moab, Torque, Splunk, Puppet, Sensu, Ganglia

## Education

- Fall 2008 - Spring 2013 **Bachelor of Science, Computer Engineering, Purdue University, West Lafayette, IN.**

## Conference Presentations

- May 6, 2016 **Moabcon, Champaign, IL, Autoscaling Compute Clusters using Docker and Moab Elastic.**

## Professional Organizations

- Fall 2011 - Present **Purdue University IEEE Chapter, President, Fall 2012-Spring 2013, Advisor, Fall 2013-Present.**