

# Adam DeConinck

HPC Systems Engineer

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<http://www.ajdecon.org/>

<http://www.github.com/ajdecon>

## Experience

- 2012–present **Systems Engineer**, *NVIDIA*, Santa Clara, CA.
- Design, deploy, and support HPC clusters for development, benchmarking and demos.
  - Primary system administrator for internal benchmarking cluster and Cray XK6 dev system.
  - Develop automation for deploying compute clusters and demo systems to the cloud.
  - Technical advice and support for marketing and solution architect teams
- 2011–present **Contributor**, *Warewulf Cluster Manager*, <http://warewulf.lbl.gov/>.  
Development and testing for open-source HPC provisioning system and cluster manager. Have worked on IPMI integration, stateful provisioning, and miscellaneous bug-fixes.
- 2010–2012 **Systems Engineer**, *R Systems NA, Inc.*, Champaign, IL.  
Designed, deployed, and provided user support for Windows and Linux compute clusters as "HPC as a Service". Developed internal tooling and automation.
- 2007–2010 **Graduate Research Assistant**, *University of Illinois*, Urbana, IL.  
Research on viscoelastic materials and microfluidics, analysis of confocal microscopy data.
- 2006 **Contractor**, *Dow Corning Corporation*, Midland, MI.  
Assembled and programmed an automated test station to perform electrical characterization and optical analysis of prototype OLED devices

## Skills and Knowledge

### Programming Languages

Python	Simulations (NumPy), sysadmin	Fortran	Numerical simulations
Perl	Sysadmin, webapps, Warewulf	C	Some MPI programming
Shell	Sysadmin, misc scripting	Java	Image processing with ImageJ

### High Performance Computing

Provisioning	Warewulf, Windows HPC; some experience with Platform, Bright, Cobbler
Management	Torque/Maui, PBS Professional, SLURM, Windows HPC Pack, Grid Engine, Hadoop
Storage	Parallel filesystems including Lustre, HDFS, PVFS2; NFS for low-performance storage
Networking	Deploy and manage Infiniband and Ethernet networks in clustered environments
Cloud	Single-node and cluster deployments on Amazon EC2 and Peer 1

### General System Administration

Support	Front-line support for large, complex HPC deployments with up to 100 users
Configuration	Configuration management with Chef or Ansible (Linux) or Group Policy (Windows)
Deployment	Build packages (rpm/deb/msi) for custom application deployment

## Education

- 2007–2010 **M.S. Materials Science and Engineering**, *University of Illinois*, Urbana, IL.
- 2003–2007 **B.S. Physics**, *Michigan Technological University*, Houghton, MI.  
Minors: Mathematics, Electronic Materials

## Additional Training

- 2012 **Cray XE6/XK6 System Administration**, *Cray, Inc.*, Chippewa Falls, WI.