

# ADAM DECONINCK

---

909 S. 5th St #139, Champaign, IL 61820    (347) 709-2326    ajdecon@ajdecon.org    <http://www.ajdecon.org/>

## Summary

---

Engineer and scientist with expertise in high-performance computing and cloud computing. Background in academic and commercial research with a heavy focus on computational analysis. Interested in “Big Data” technologies and the application of cloud computing to HPC for non-traditional users.

## Professional Experience

---

### **Systems Administrator (Applications) @ R Systems NA, Inc.**

*November 2010–present*

- Design, deploy, and support virtual dynamic HPC clusters in a wide variety of configurations.
- Tune configuration of customer applications for best performance and usability.
- Project lead on 10+ HPC deployments, including a long-term 1000-core cluster.
- Develop software and pre-built images for deployment of “cloud” HPC clusters.
- Track technology development and evaluate new hardware and software.
- Contribute to open-source projects and do outreach activities to relevant research communities.

### **Graduate Research Assistant @ University of Illinois**

*August 2007–November 2010*

- Scientific research on microfluidics, colloidal physics, 3D particle tracking and DNA genotyping.
- Computational analysis of microscopy images to extract physical and chemical data.
- Trained and supervised undergraduate researchers and administered group compute servers.
- Awarded the National Defense Science and Engineering Graduate Fellowship (2008–2010).

### **Physics Learning Center Coach @ Michigan Technological University**

*August 2006–May 2007*

### **Contractor @ Dow Corning Corporation**

*May 2006–August 2006*

- Developed software and hardware for an automated test station for testbed OLED devices.
- OLED test station and software were still in active use as of project completion in 2009.

### **Teaching Assistant @ Michigan Technological University**

*August 2005–December 2005*

### **Undergraduate Research Assistant @ Michigan State University**

*June 2005–August 2005*

### **Undergraduate Research Assistant @ Michigan Technological University**

*June 2004–May 2005*

## Other Experience

---

- **Warewulf 3.0:** Developer and tester for the HPC cluster manager from Lawrence Berkeley National Lab.
- **Presentations and Publications:** Academic publications and presentations to the research and engineering communities on topics in science and HPC. Full list at <http://www.ajdecon.org/projects/pubs>.

- **ImageJ plugins:** Developed mathematical morphology processing routines for the popular image-processing tool, available at [http://www.github.com/ajdecon/imagej\\_morphology](http://www.github.com/ajdecon/imagej_morphology).
- **Fencing:** Épée fencer and occasional volunteer instructor at The Point in Champaign, IL. Previously served as President of the Fencing Club at Michigan Technological University.

## Education

---

**M.S. in Materials Science and Engineering**—University of Illinois

December 2010

**B.S. in Physics**—Michigan Technological University

May 2007

## Skills and Knowledge

---

- Configure and support HPC clusters running Linux (RHEL, Fedora, Ubuntu) and Windows 2008 HPC R2
- Programming languages: Python, Perl, bash, Matlab, and Java for sysadmin and scientific programming
- Classroom or personal experience with Fortran, C, and R
- Set up and configure Ethernet and Infiniband networks
- Automated provisioning and configuration with Perceus/Warewulf, Cobbler, MS HPC Pack, Puppet
- Configure and track HPC Schedulers including Torque/PBS, Grid Engine, Hadoop, and MS HPC Pack
- Configure and maintain parallel file systems including Lustre, PVFS2, and HDFS
- Support academic and commercial users at a variety of experience levels