Darren T. **Boss**

INFRASTRUCTURE ENGINEER · DEVOPS

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Education

University of Manitoba	*Winnipeg, Manitoba, Canada*
B.Sc., COMPUTER SCIENCE	*1999*

- Focus on Artificial Intelligence and Machine Learning.

Skills

DevOps	Ansible, YAML, JSON, Docker, LXC
Sysadmin	OpenStack, RHEL/CentOS, Ubuntu/Debian, Arch, Nagios
Programming	Python, C/C++, JAVA, Perl, Lua
Web	Django with Python, Ruby on Rails
Training	Software Carpentry Certified Instructor

Experience

Duke Center for Genomic and Computational Biology - http://genome.duke.edu	*Duke University*
SENIOR SYSTEMS ADMINISTRATOR & INFRASTRUCTURE ENGINEER	*2014 - present*

- Administrated 1.5 Petabytes of NetApp FAS and E-Series storage.
- Administrated and advised researchers on using our 3744 core HPC cluster.
- Tuned hardware and GPFS software for better performance.
- Transitioned center from using VMware to user controlled OpenStack deployment of research virtual machines.
- Integrated Ansible into manually deployed systems the previous staff had deployed by hand.
- Taught intro HPC in GCB Academy workshops.
- Specification and installation of HPC expansion.

CyVerse (formerly iPlant Collaborative)	*University of Arizona*
SENIOR SYSTEMS ADMINISTRATOR	*2013 - 2014*

- Deployed new OpenStack installation at Texas Advanced Computing Center.
- Maintained existing OpenStack installation at the University of Arizona.
- Responsible for software upgrades and monitoring of iRODS based Data Store.

Ecology and Evolutionary Biology, Sullivan Lab	*University of Arizona*
SENIOR SYSTEMS PROGRAMMER	*2013*

- Administration of shared HPC cluster.
- Installation of genomics applications on the cluster.
- Porting of lab developed pipelines to run within the iPlant/CyVerse infrastructure.

Ecology and Evolutionary Biology, Sanderson Lab	*University of Arizona*
SENIOR SYSTEMS PROGRAMMER	*2007 - 2013*

- Installation and administration of 288 core HPC cluster for the lab.
- Installation and configuration of 9 panel visualization wall.
- Programmed new and parallelized existing portions of the computing pipeline for a large scale phyloinformatics project in Perl.

The Field Museum - Zoology	*Chicago, Il*
BIOINFORMATICIST	*2009 - 2011*

- Administered the museum's HPC cluster.
- Developed a Ruby on Rails application for data collection on the Emerging Pathogens Project.

Academic Information and Communication Technologies	*University of Alberta*
SYSTEM ADMINISTRATOR	*2005 - 2007*

- System administrator for several departmental and research projects running a mixture of Solaris, AIX and Linux operating systems.
- Secondary contact for many critical Oracle instances.
- Consulted on and configured Linux based HPC clusters.

Folkways Alive!
University of Alberta

SYSTEM ADMINISTRATOR
2005

- Assisted with system and network administration during project start up.
- Installation and support for Linux servers, Sun Ray thin clients, OpenBSD firewalls, Cisco wireless and HP ProCurve Gigabit network.

Text Analysis Portal for Research
University of Alberta

SOFTWARE DEVELOPER/SYSTEM ADMINISTRATOR
2003 - 2005

- Assisted in drafting server RFP and vendor selection during initial hardware purchase.
- System administration for Linux and Solaris servers.
- Implemented incremental network backup scripts utilizing open source software.
- Ongoing software development and consultation with research projects.

Bruce Rannala Research Group
University of Alberta

SYSTEM ADMINISTRATOR
2002 - 2003

- Installation and administration of 36 CPU Linux HPC cluster.
- Managed network, firewall, file and print services for lab.

GE Fanuc
Edmonton, Alberta

SOFTWARE DEVELOPER
2001 - 2002

- Team member developing Synergy, a framework of components, tools and processes to enable rapid development and deployment of web-based manufacturing execution system solutions.
- Development done using a number of J2EE technologies including XML, XSLT, SOAP, Java Applets, JSP and Servlets.

System and Technology Services, Department of Education, Training and Youth
Winnipeg, Manitoba

PROGRAMMER/ANALYST
1999 - 2001

- Programmer on a J2EE web-based application for collecting and processing student loan applications for Manitoba Student Aid.
- Implemented version control software for all software development projects.

Extracurricular Activity

Splat Space - Maker Space
Durham, NC

BOARD MEMBER
2011 - 2015

- Board member for three consecutive years with the roles of treasurer and secretary.
- Helped the space acquire non-profit 501(c)(3) status.
- Volunteered at many maker faires and museums.
- Co-taught a class on Arduino for middle school aged students at a local library.
- Website system administrator.

Edmonton Unix User Group
Edmonton, AB

BOARD MEMBER
2003 - 2007

- Organized speakers for presentations at meetings.
- Presented on several topics including open source VoIP PBX software, system monitoring using Nagios and LDAP/Kerberos.
- Website system administrator.

Presentation

iRODS User Conference
University College London

PRESENTER
Sep. 2014

- Presented on iPlant's usage of iRODS for the research Data Store.

Edmonton Unix User Group
Edmonton, Alberta

PRESENTER
Apr. 2006

- Presented on setup and usage of the open source PBX software Asterisk.

Campus Computing 2005
Edmonton, Alberta

PRESENTER
Jun. 2005

- Presented on using Apple's Open Directory software in a mixed client environment.

Edmonton Unix User Group
Edmonton, Alberta

PRESENTER
Feb. 2005

- Nagios Host and Service Monitor.

Edmonton Unix User Group   *Edmonton, Alberta*

PRESENTER   *Jan. 2004*

- Soekris and Embedded Linux/BSD.

Edmonton Unix User Group   *Edmonton, Alberta*

PRESENTER   *Oct. 2003*

- Introduction to LDAP and Single Sign-On.

Teaching

GCB Academy - Introduction to Scientific Computing for Genomics   *Duke University, Durham, NC*

INSTRUCTOR   *Mar. 2016*

- Staging jobs and data for HPC.

GCB Academy - Introduction to Scientific Computing for Genomics   *Duke University, Durham, NC*

INSTRUCTOR   *Oct. 2015*

- Staging jobs and data for HPC.

GCB Academy - Introduction to Scientific Computing for Genomics   *Duke University, Durham, NC*

INSTRUCTOR   *Feb. 2015*

- Staging jobs and data for HPC.

Software Carpentry Bootcamp   *North Carolina State, Raleigh, NC*

INSTRUCTOR   *Jan. 2015*

- Python and version control with Git.

Data Carpentry Bootcamp   *Duke University, Durham, NC*

HELPER   *May. 2014*

- Was a helper at the inaugural Data Carpentry bootcamp at the National Evolutionary Synthesis Center.

Software Carpentry Teacher Training   *Mozilla, Toronto, ON*

TEACHER TRAINING   *Apr. 2014*

- Completed Software Carpentry instructor training course.

Carolina Farm Stewardship Sustainable Agriculture Conference   *Durham, NC*

WORKSHOP FACILITATOR   *Nov. 2013*

- Co-presented at the farmhack workshop on microcontrollers and other electronics useful in automation projects.

Software Carpentry Bootcamp   *University of Kansas, Lawrence, KS*

INSTRUCTOR   *Aug. 2013*

- Taught section on Python.

Software Carpentry Bootcamp   *University of Arizona, Tucson, AZ*

HELPER   *Apr. 2013*

- Helper at the iPlant sponsored Software Carpentry workshop.