

Andrew A. Neuschwander

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Specialties

- **Linux Systems Administration and Programming in science and technology.**
- **Cluster Computing for Multi-Terabyte Scale Science.**

Summary of qualifications

- **Systems Administrator: *Ten years of Linux experience.*** Experienced in designing, implementing, and managing server, storage, network, cluster, and virtualization solutions. Experienced in multi-terabyte data management and cluster based parallel processing. Experienced in heterogeneous server environments. Familiar with an extensive number of server technologies including NIS/NFS, Apache, Samba, and VMware's VI3. Can evaluate and implement custom solutions for a wide variety of IT needs.
- **Software Engineer:** Experienced in many languages, including: Perl, C, PHP, Bourne Shell, SQL. Familiar with many common tools such as gcc, insure++, cvs, and subversion. Familiar with multiple paradigms: systems, application, web-based, and parallel programming.

Professional certification

- **RedHat Certified Engineer (RHCE)** on RedHat Enterprise Linux 4 (certification #804005507017025).

Professional experience

May 2001 - Present **Linux Systems and Software Engineer**

Numerical Terradynamic Simulation Group, The University of Montana - Missoula, MT
National Center for Landscape Fire Analysis, The University of Montana - Missoula, MT

- Designed, deployed, and manage compute resources for several data-intensive research groups.
- Provide code integration and programming support for ecosystem science software models.
- Responsible for a multi-terabyte data warehouse and the Linux cluster to process these data.
- As part of a team; developed, deployed, and maintain a remote wireless research data network.

May 2004 - Dec 2004 **Research Collaborator and Advisor on Cluster-Based Computing Systems for Environmental Management** on contract with NASA Ames Research Center

- Provided experienced based advice on network design, cluster maintenance, and data management
- Executed regular detailed security and systems audit and review.

Dec 2000 - Jan 2002 **Linux Systems Administrator and Programmer**

TRIO Training, University of Washington - Missoula, MT

- Designed and implemented a multi-user web design competition environment for a nation wide user base. Provided secure multi-user remote web-programming tools.

Mar 2000 - Nov 2000 **Linux Systems Administrator and Programmer**

Information Technology Resource Center, The University of Montana - Missoula, MT

- Implemented core network and streaming multi-media services.
- Designed, developed, and maintained enterprise level network monitoring software.
- Participated in international community based Open Source projects.
- Other projects included a collaborative software development environment and an online video management library.

Sept 1999 - Jan 2000 **Independent Programming Consultant**
Consultant to Big Sky Network Technologies Missoula, MT

- Developed and maintained C and Perl applications to administer network services and monitor ISP user loads across a geographically distributed network.

May 1997 - Sept 1999 **Systems Administrator**
Big Sky Network Technologies - Missoula, MT

- Administered a network of Windows NT, Linux, and Solaris servers in a 24 by 7 ISP environment.
- Implemented a wide range of network services and related security practices.
- Developed and implemented a network security model and policies.

Publications & presentations

Neuschwander A, B Bond-Lamberty, "BGC5: New Features and Usage Changes in the Next Major Release of Biome-BGC" poster presentation at the AGU Joint Assembly 2007, Acapulco, Mexico, May 2007.

Votva P, R Nemani, C Bowker, A Michaelis, A Neuschwander, J Coughlan, "Distributed Application Framework for Earth Science Data Processing" proceedings paper at The International Geoscience and Remote Sensing Symposium, Toronto, CA, June 2002.

Neuschwander A, "An Automated Data Ingestion and Cataloging System" poster presentation at NASA ESIP Federation 2nd Technical Workshop, Pasadena, CA, January 2003.

Professional meetings

American Geophysical Union Joint Assembly 2007 May 22 - 25, 2007 Acapulco, Mexico
American Geophysical Union Fall 2006 December 11 - 15, 2006 San Francisco, CA
Biome-BGC / RHESSys Workshop 2006 April 25 - 27, 2006 NTSG, Missoula, MT
MODIS Vegetation Workshop II August 17 - 19, 2004 NTSG, Missoula, MT
NASA ESIP Federation 2nd Technical Workshop January 6 - 9, 2003 JPL, Pasadena, CA
MODIS Vegetation Workshop July 16 - 18, 2002 NTSG, Missoula, MT
Science Data Processing Workshop February 26 - 28, 2002 GSFC, Greenbelt, MD

Education

1995 - 2000 The University of Montana - Missoula, MT
Bachelor of Arts in Biology

- Emphasis in Botanical Sciences.

Bachelor of Arts in Mathematics

- Emphasis in Applied Analysis

Additional academic activities

Summer 1999 Flathead Lake Biological Station Yellow Bay, MT
Independent Study

- On the Bioenergetics of *Mysis Relicta* under Dr. Jack Stanford