

Andrew Nieuwsma

Minneapolis, MN

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SKILLS

LANGUAGES: C++ (3 years), Bash (2 years), SQL (7 years), C# (3 years), XML (2 years), Visual Basic (5 years), UML (5 years), ERD (5 years), .Net Framework (5 years), Java (2 years), PHP (4 years)

SOFTWARE: Vim, Workload Managers, OBS, GDB, GNU Make, Atlassian tools, Google Test Framework, Boost C++ Framework, GIT, TFS, Subversion, LevelDB, MS Office Suite, Visual Studio, SSRS, SSAS, SSIS, various SQL platforms (development & administration): Microsoft SQL Server 2014 – 2005 (SSMS), MariaDB, SQLite and MySQL

SYSTEMS: Linux Server and Desktop (various distributions) Windows Server and Workstation (various distributions)

PROFESSIONAL EXPERIENCE

Software Engineer

Cray Inc., Minneapolis, MN, May 2017 to Present

- Developed diagnostic software for Cray HPC systems running the Cray Linux Environment
- Cascade platform:
 - o Completed critical design analysis of diagnostic software for Xeon-Phi processors
 - o Analyzed, documented and solved software errors in diagnostic applications
 - o Completed functional tests and validated application changes on compute nodes
- Shasta (next-gen) platform:
 - o Developed a unified proposal for logging diagnostic data for Shasta platform
 - o Redesigned and retooled diagnostic libraries for configuration parsing, command-line argument validation and random number generation optimizing for object oriented design and unit testability
 - o Architected and developed a framework for internal management of diagnostic state and graceful program termination in response to process signaling of a multi-threaded application
- Analyzed, implemented and documented unit testing and static code analysis platforms as part of the Diagnostic Team's continuous integration pipeline initiative
- Championed 'best-practices' regarding design patterns and architectural styles
- Participated in full SDLC using agile/scrum as well as process improvement planning
- Created system requirements and design documentation using UML & ERD

Programmer Analyst

Ziegler Caterpillar Inc., Minneapolis, MN, January 2015 to May 2017

- Performed systems analysis, design, architecture and implementation. Working in all areas of the software development life cycle from requirements gathering to implementation and maintenance at enterprise scale.
- Full stack development using Microsoft SQL Server, .NET (C#, VB, ASPX), HTML5, XML and web services.

- Built and enhanced Business Intelligence and ETL solutions utilizing Microsoft SQL Server business intelligence stack (SSRS, SSAS, SSIS).
- Architected adaptive ETL process
- Migrated legacy analytics platform to SSAS.
- Technical project leader for Microsoft SQL Server upgrade initiative from version 2005 to version 2014.
- Led comprehensive technical security review of internal applications and infrastructure.

Adjunct Professor

William Penn University, Oskaloosa, IA, September 2013 to December 2014

Primary Instructor for:

- Software Engineering Project (capstone class)
- Business and Computer Applications
- Introduction to Computers and Technology

Graduate Assistant

William Penn University, Oskaloosa, IA, January 2013 to December 2014

Teaching Assistant for:

- Software Engineering Project: agile / scrum development project of real-time embedded system to track sun with solar panels. Using Arduino and C++
- Algorithms and Programming: CS2 class taught in Java
- Computer & Network Management: taught fundamentals of network and server management
- Computer Organization and Digital Electronics
- Introductions to Computers and Technology

Department Assistant

William Penn University, Oskaloosa, IA, January 2011 to December 2012

- Implemented university-wide, Linux based, computer imaging solution (400+ pc's)
- Configured and administered Windows and Linux servers for class labs
- Repaired and maintained department computers, network, servers and peripherals
- Managed and maintained computer inventory

Information Technology Generalist

Infinitas Technology Consulting for Businesses, Sigourney, IA 2007 – 2013

- Designed, developed and maintained websites PHP5, MySQL, JS
- Windows and Linux systems administration (web, storage and print servers)
- Network administration (router, firewall and access points)

EDUCATION

University of Minnesota, College of Science and Engineering — Minneapolis, MN

Master of Science in Software Engineering

William Penn University — Oskaloosa, IA

Master of Business Leadership

William Penn University — Oskaloosa, IA

BA in Software Engineering & Information Technology (*dual major*)