Randy Heiland

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Work Experience

2003 – Present

Indiana University
Bloomington IN

Associate Director/Manager/Senior System Analyst/Software Engineer. Scientific software and infrastructure projects for bioinformatics, biology, neuroscience, fluid dynamics, and cybersecurity. Adjunct faculty in Mathematics Dept.

2005 – 2010

President
Acquired Science LLC

Consulting and scientific software development.

1997 – 2003

Senior Research Scientist
National Center for Supercomputing Applications (NCSA), University of Illinois, Urbana IL

Scientific visualization software developer, including virtual reality (CAVE) and haptics. Taught college course in OpenGL.

1993 – 1997

Computer Scientist
Pacific Northwest National Lab, Richland WA

Scientific visualization software developer for computational chemistry and image analysis.

July 1992 – Dec 1992

Graduate Research Associate
Los Alamos National Lab, Los Alamos NM

Software developer for data visualization and analysis on HPC.

1985 – 1987

Computer Programmer
Center for Industrial Research, Oslo Norway

Software developer for computer-aided geometric design.

Education

1992 **M.A., Mathematics**
(dynamical systems)
Arizona State University, Tempe

1985 **M.S., Computer Science**
(computer graphics, CAGD)
University of Utah, Salt Lake City

1979 **B.S., Computational Math**
Eastern Illinois University, Charleston

Sample of Projects

CTSC (trustedci.org)
The NSF Cybersecurity Center of Excellence

SGCI (sciencegateways.org)
Science Gateways Community Institute

SWIP (cacr.iu.edu/projects/swip)
Scientific Workflow Integrity with Pegasus

CompuCell3D (compucell3d.org)
Simulation for multi-cell modeling

LifeScienceWeb
Web services for bioinformatics

VisBench/VisPort
Remote data visualization and analysis

ECCE (ecce.emsl.pnl.gov)
Extensible Computational Chemistry Environment

Software Skills

Good level	C/C++, Python(+numerous pkgs), OpenGL, VTK, CMake, ParaView, MATLAB, git, LaTeX, Eclipse, gdb, Linux, OSX
Intermediate	Fortran, Java, R, CUDA, OpenCL, OpenMP, ITK, HTML, Xcode
Basic level	MySQL, MPI, Boost, Django, Mathematica, Javascript, Blender, Windows

Publications/Presentations

Google Scholar

References

Available upon request.