

Randy Heiland

WORK EXPERIENCE

2003 – PRESENT

Indiana University
Bloomington IN

Associate Director/Manager/Senior System Analyst/Researcher. Scientific software for bioinformatics, biology, neuroscience, fluid dynamics, cybersecurity, and engineering. 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

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🌐	scholar.google.com/...
🌐	github.com/rheiland?tab=repositories

SAMPLE OF PROJECTS

PhysiCell (physicell.mathcancer.org)
An open source physics-based cell simulator

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.