

JOEL D. DANIELS II

461 South University Street
Salt Lake City, UT • 84102
phone • 801.910.4141
email • jdaniels@sci.utah.edu
website • <http://www.cs.utah.edu/~jdaniels>

OBJECTIVE

Seeking a full-time position in computer graphics software development. Interested in work involving inventiveness, creativity, and group interaction. My strengths include graphics, modeling, computer networking, human-computer interaction, studio art, recurring high academic accomplishments, and leadership skills.

TECHNICAL EXPERIENCE

Software: C, C++, Java, Python, SML, HTML, and others.

Hardware: PC's (Windows 98/2000/NT/XP, Redhat, SuSe, Mac OS X, (Snow) Leopard), Sun Solaris and others.

EDUCATION

PhD Computer Science

University of Utah, June 2010, Overall GPA: 4.0

MS Computer Science

University of Utah, December 2005, Overall GPA: 3.98

BS Computer Science with University-Honors-in-Major and Minor Studio Arts,

University of New Hampshire, May 2003, Overall GPA: 3.94

WORK EXPERIENCE

June 2009 to Present: Post-Doctorate Researcher, Scientific Computing and Imaging Institute

Researching vector field visualization techniques, collaborative development of visualization and remote management for simulation executions, and geometry processing specifically targeting quadrilateral design.

December 2003 to June 2009: Research Assistant, University of Utah

Researched geometric processing of point- and polygonal-based models, NURB modeling of molecular surfaces for molding purposes, and feature matching and morphing between two B-spline curves and surfaces.

December 2004 to December 2005: Software Developer, University of Utah

Developed Java based media player and data collection tool for the Ergonomic Studies group of the Mechanical Engineering Department. Multiple MS and PhDs have conducted research and obtained degrees using the tool.

August 2003 to December 2003: Teacher Assistant, University of Utah

Course taught Matlab and C to undergraduate engineering students.

Summer 2002: Internship Researcher, Rennes, France

Researched Wide Area Network bandwidth utilization for Grid Computing applications. Built a preliminary library for Wide Area Network data transfers for the Grid Computing infrastructure PADICO. Proposal preparation, thesis development, and presentation experience.

October 2000 to August 2003: Service Quality Analyst/Software Engineer, UNH InterOperability Lab

Tested network communication protocols and aided in test suite development. Extended in house network sniffer and packet generator to decode and generate new packets. Worked on developing an MPLS RSVP emulator. Development was done in C, Java, TCL and object oriented design.

RECENT PUBLICATIONS/PRESENTATIONS

"Interactive Vector Field Feature Identification" IEEE Transactions on Visualization and Computer Graphics, 2010.

"Semi-Regular Quad-only Remeshes from Simplified Base Domains" Symposium on Geometry Processing, 2009.

"Localized Quadrilateral Coarsening" Symposium on Geometry Processing, 2009.

"Quadrilateral Mesh Simplification" SIGGRAPH Asia, 2008.

"Spline-based Feature Curves from Point-Sampled Geometry" The Visual Computer, 2008.

"Robust Smooth Feature Extraction from Point Clouds" Shape and Modeling International, 2007.

AWARDS/ACHIEVEMENTS

Graduated Valedictorian Goffstown High School (1999)

William H. Pope Lockheed Sanders 4 year Scholarship (1999)

University of New Hampshire 4 year Presidential Scholarship (1999)

Ellsworth IROP Award, awarded to the best submitted research proposal (2002)

Executive officer of Upsilon Pi Epsilon (Computer Science Honors Society) (2003)

UNH Hood Achievement Award, given *"to that senior man who shows the greatest promise through character, scholarship, leadership and usefulness to humanity."* (2003)

Selected *"One of the Best of Conference Papers,"* Shape and Modeling International (2007)