Atul Nayak

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*Highly motivated,
creative graphics
researcher -*

*Knowledge of
2D/3D graphics,
virtual reality and
data visualization*

Summary of Qualifications

- 5+ years of C/C++ programming experience (2 years in the software industry).
- Expertise in graphics programming, virtual reality devices, animation techniques, scientific visualization, game programming, networking and socket programming on UNIX and Windows platforms.
- Published papers and presented research at major technical conferences.
- Confident, capable and industrious – work equally well in self-directive environment and as a team member.

Technical Skills

- Graphics Programming: Open GL, Open Inventor, OpenDX, SGI Performer
- Languages: C++, C#, Java, Visual C++, embedded Visual C++, COBOL, CICS,
- Operating systems: Windows 2000/XP, Linux, Solaris, SGI Irix, OS X, MVS
- Toolkits: fltk, glut, MFC, Win APIs, CAVERNsoft G2, Yggdrasil, CAVElib

Education

M.S., Computer Science, University of Illinois at Chicago, Aug 2000
Current GPA: 4.63/5.0, Expected date of graduation: March 2003

B.E., Instrumentation Engineering, University of Mumbai 1994 - 1998
Ranked 3 out of 290 students

Employment

Research Assistant   Aug 2000 to date
Electronic Visualization Laboratory, University of Illinois at Chicago

- Created an original real time visualization tool for 3D stereoscopic visualization of earthquake data
- Co-designed and installed a low-cost passive stereo DLP projection system (GeoWall) for the geo-scientific community
- Designed and deployed a networked interactive model viewer for the GeoWall
- Maintained and developed CAVERNsoft, a C++ toolkit to support collaboration between virtual environments over high-speed networks
- Developed integrated ubiquitous tools and environments to enhance collaboration amongst distantly located knowledge workers
- Conducted bulk data transfer experiments on international networks using parallel TCP

Software Engineer/Quality Controller   Aug 1998 – June 2000
Information Management Resources, Mumbai, India
AXA Melbourne, Australia

- Developed and tested batch and online systems for funds management
- Introduced configuration control to PROUNIT system at AXA
- Quality controller for the project executed for National Mutual to renovate existing systems for the Y2K challenge
- Reengineering the online system for Amtrak, converting code from CSP to CICS

Publications

- A M Nayak, J Leigh, A Johnson, R Russo, P Morin, C Laughbon, T Ahern: WiggleView: Visualizing Large Seismic Datasets, *Eos Trans. AGU, 83(47), Fall Meet. Suppl., Abstract U61A-0007, 2002*
- J. Leigh, A. Johnson, K. Park, A. Nayak, R. Singh, V. Chowdhry, Amplified Collaboration Environments, VizGrid Symposium, Tokyo, November 2002 (www.vizgrid.org).
- Kirkby, K., Morin, P., Finley, F., Brandt, J., Burdick, R., Nayak, A. Benefits And Implications Of Using Stereo Projection In Earth Science Classrooms, s*ubmitted to topical sessions for the 2002 Denver Annual Meeting (October 27-30, 2002), The Geological Society Of America*
- Thorson, M., Leigh, J., Maajid, G., Park, K., Nayak, A., Salva, P., Berry, S., AccessGrid-to-Go: Providing AccessGrid access on Personal Digital Assistants, *In proceedings of Access Grid Retreat, La Jolla CA, March 4-5, 2002. Access-Grid-to-go: Providing AccessGrid access on Personal Digital Assistants*
- Leigh, J., Yu, O., Schonfeld, D., Ansari, R., He, E., Nayak, A., Ge, J., Krishnaprasad, N., Park, K., Cho, Y., Fang, R., Verlo, A., Winkler, L., DeFanti, T., Adaptive Networking for Tele-Immersion*, Proceedings of the Immersive Projection Technology/Eurographics Virtual Environments Workshop (IPT/EGVE), May 16-18, 2001, Stuttgart, Germany*

Conferences and Workshops

- Poster session on Wiggleview at the American Geophysical Union, San Francisco, December 2002
- Demonstrated Wiggleview at the 14th Annual IRIS Workshop, Waikoloa Beach, Hawaii, June 2002
- Presentation on 'Immersaview: Visualization for the Geosciences' at the Second GeoWall Meeting, Minneapolis, June 2002
- Presentation on 'Commodity Passive Stereo Graphics' at the All-hands Alliance Meeting, Urbana, May 2002
- Presentation on 'Creating Collaborative Virtual Environments' at the CAVE Workshop, PDC, Royal Institute of Sweden, Stockholm, October 2001
- SIGGRAPH Team leader (2002), Student Volunteer (2001)
- Member, Students' Activities Funding Committee, University of Illinois at Chicago, 2002-2003
- President, Indian Graduate Students' Association, University of Illinois at Chicago, 2001 - 2002