Daniel Benjamin Russakoff

Born: November 30, 1973
Marital Status: Single
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EDUCATION

College: Harvard University, Cambridge, Massachusetts: B.A. Magna Cum Laude 1996
              Concentration: Geophysical Sciences

Graduate: Stanford University, Palo Alto, California: M.S. 1999, PhD 2004 (expected)
              Concentration: Computer Science, Specialization: Computer Vision/Medical Imaging
              Current GPA: (3.95/4.0)

RESEARCH / EMPLOYMENT EXPERIENCE

3/01-present   **Stanford Image Guidance Laboratories**: Research Assistant working with Prof. Calvin Maurer, Jr. on 2D-3D medical image registration for use in radio-surgical interventions and minimally-invasive image-guided surgical applications.

9/00-present   **Stanford University Vision Laboratory**: Research Assistant with Prof. Carlo Tomasi
6/98-9/99   investigating a probabilistic framework to help disambiguate correspondences in a moving sequence of stereo images.   Also worked on arm tracking aspect of a project on the recognition of American Sign Language.

9/99-9/00   **National Institute of Standards and Technology**: Computer Scientist working full-time in SmartSpaces group developing algorithms for 3D head tracking and gesture recognition.

9/97-6/98   **Daimler Benz Research and Technology Center North America**: Research Assistant with Prof. Pat Langley applying machine learning techniques to develop adaptive user interfaces with applications to an automobile-based Adaptive Route Advisor.

6/97-9/97   **U.S. Naval Research Laboratory**: worked full time as a Summer Intern designing and implementing graph layout algorithms to help visualize and debug applications for ATM networks.

2/95-6/97   **Harvard University Seismology Department**: worked as a Research Assistant with Prof. Göran Ekström examining the mechanism of deep earthquakes with applications to earthquake prediction.

Related skills: Programming in C, C++, MS Visual C++, Matlab, Java, Fortran, Lisp. Proficiency with Unix, Linux, PCs, Macs, html, OpenGL. Experience with large software projects.

REFERENCES

   available upon request

PUBLICATIONS

<u>**Journal Articles**</u>:

D.B. Russakoff, M. Herman. **Head tracking using stereo**. *International Journal of Machine Vision and Applications*. **12**(3): pp.164-173, 2002.

D.B. Russakoff, G. Ekström, J. Tromp. **A new analysis of the great 1970 Colombia earthquake**. *Journal of Geophysical Research*. **102** (B9), pp. 20423-20434, 1997.

<u>**Conference Articles**</u>:

D.B. Russakoff, T. Rohlfing, R. Shahidi, D.H. Kim, J.R. Adler, C. R. Maurer. **Intensity-based 2D-3D spine image registration incorporating one fiducial marker.** *Medical Image Computing and Computer-Assisted Intervention (MICCAI), LNCS 2878*, November 2003, pp. 287-294. (Oral presentation)

T. Rohlfing, D.B. Russakoff, C.R. Maurer, Jr., **Extraction and application of expert priors to combine multiple segmentations of human brain tissue**. *Medical Image Computing and Computer-Assisted Intervention (MICCAI), LNCS 2879*, November 2003, pp. 578-585. (Poster presentation)

D.B. Russakoff, T. Rohlfing, C.R. Maurer, Jr., **Fast intensity-based 2D-3D image registration of clinical data using light fields.** *Proc. 9th IEEE International Conference on Computer Vision (ICCV)*, October 2003, pp. 416-422. (Oral presentation)

T. Rohlfing, D.B. Russakoff, C.R. Maurer, Jr., **Expectation maximization strategies for multi-atlas multi-label segmentation**. *Information Processing in Medical Imaging (IPMI), LNCS 2732*, July 2003, pp. 210-221. (Oral presentation)

D.B. Russakoff, T. Rohlfing, A. Ho, D.H. Kim, R. Shahidi, J.R. Adler, C. R. Maurer, Jr., **Evaluation of intensity-based 2D-3D spine image registration using clinical gold-standard data.** *Proc. Workshop on Biomedical Image Registration (WBIR), LNCS 2717*, June 2003, pp. 151-160. (Oral presentation)

T. Rohlfing, D.B. Russakoff, C.R. Maurer, Jr., **An expectation maximization-like algorithm for multi-atlas multi-label segmentation**, *Bildverarbeitung für die Medizin (BVM 2003)*, March 2003, pp. 348-352. (Poster presentation)

D.B. Russakoff, T. Rohlfing, D. Rueckert, C.R. Maurer, Jr., **Fast calculation of digitally reconstructed radiographs using light fields.** *Medical Imaging: Image Processing, Proceedings of SPIE, vol. 5032*, February 2003, pp. 684-695. (Oral presentation)

T. Rohlfing, D.B. Russakoff, C.R. Maurer, Jr., **An Intensity-Based Registration Algorithm for Probabilistic Images and Its Application to Fluoroscopy-to-CT Image Registration.** *Medical Imaging: Image Processing, Proceedings of SPIE, vol. 4684*, February 2002, pp. 581-591. (Oral presentation)

D.B. Russakoff, T. Rohlfing, C.R. Maurer, Jr., **Fuzzy Segmentation of Fluoroscopy Images.** *Medical Imaging: Image Processing, Proceedings of SPIE, vol. 4684*, February 2002, pp. 146-154. (Oral presentation)

D.B. Russakoff, M. Herman, **Head tracking using stereo**. *Proc. 5th IEEE Workshop on the Application of Computer Vision (WACV)*, October 2000, pp.254-260. (Oral presentation)

SERVICE

Chair of Motion/Stereo session at *5th IEEE Workshop On the Application of Computer Vision (WACV)*, December 2000