



DAN MORRIS: CV

dan@microsoft.com

<http://research.microsoft.com/users/dan>

RESEARCH INTERESTS

Patient interaction with health data systems
Neural and biometric interfaces, neurophysiology, medical devices
Computer music, creativity support tools for music
Multimodal interfaces, haptics
Physical simulation, interactive simulation
Rock, roll, shredding, wailing

EDUCATION

2006 Stanford University
PhD in Computer Science
Advisor: Kenneth Salisbury

2003 Stanford University
MS in Computer Science

2000 Brown University
BS in Neuroscience (Magna Cum Laude)

AWARDS

2011 Best Paper Award (for “Your Noise is My Command”), ACM CHI 2011

2011 Best Paper Nomination (for “ClassSearch”), ACM CHI 2011

2010 Citation for outstanding reviewer service, IEEE Transactions on Haptics

2010 Best Paper Award (for “Skinput”), ACM CHI 2010

2010 Best Paper Nomination (for “Patient-Centric Displays”), ACM CHI 2010

2007 Best Paper Award (for “Haptic Guidance”), IEEE World Haptics 2007

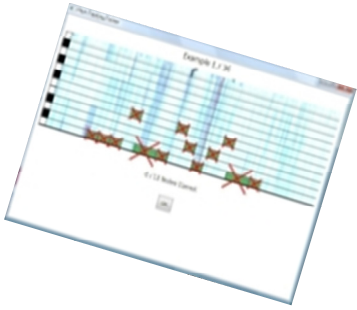
2001 National Defense Science and Engineering Graduate Fellowship

- 2001 National Science Foundation Graduate Fellowship (declined)
- 2000 CRC award for performance in undergraduate organic chemistry
- 1999 Merck prize for performance in undergraduate inorganic chemistry

WORK AND RESEARCH EXPERIENCE

- 2006 – present **Microsoft Research**
Researcher, CUE (Computational User Experiences) Group
- 2011 – present **University of Washington**
Affiliate Professor, Department of Computer Science and Engineering
- 2001 – 2006 **Stanford University Dept of Computer Science, Robotics Lab**
PhD Student
Haptics and deformable tissue modeling for surgical simulation
Simulation of temporal bone and craniofacial surgery
- 2002 – 2006 **Cyberkinetics Neurotechnology Systems**
Systems Engineer
Developed a system for real-time neural decoding, experimental design and control, and data acquisition. Used in clinical trials for a neural prosthetic device, developed to restore communication to paralyzed patients.
- 2004 – 2005 **Hansen Medical**
Consulting Engineer
Worked on image analysis projects related to Hansen's development of a robotic catheter control system.
- Summer 2002 **Brown Univ Dept of Neuroscience, Multichannel Recording Lab**
Consulting Engineer
Developed a platform for intraoperative experiments in which patients undergoing stimulator implant surgery controlled an on-screen cursor via cortical recording electrodes.
- Summer 2001 **Cereon Genomics**
Research Intern
Research project exploring the occurrence of alternative splicing in *Arabidopsis thaliana*. Developed algorithms to find evidence for





alternative splicing in a large EST library

Tiqit Computers
Computer Engineer

Schematic design and prototyping, Linux and Windows applications and device drivers, and microcontroller code for an x86-based wireless handheld

Spring 2000

Brown University Dept of Computer Science, Graphics Lab
Independent Research Project, supervised by David Laidlaw

Developed software for visualization and analysis of multi-valued fluorescence images and analyzed diffusion-tensor MR images to identify neuroanatomy from diffusion patterns

1998 – 2000

Brown Univ Dept of Neuroscience, Multichannel Recording Lab
Independent Research Project, supervised by John Donoghue

Developed hardware and software for control of a robotic arm by multi-electrode neural recordings, and studied the role of correlated neural activity in motor skill learning

Summer 1999

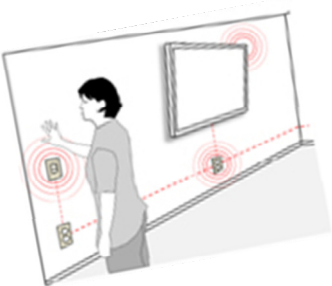
National Institutes of Health, Laboratory of Neuropsychology
Research Intern, supervised by Andrew Rossi

Developed data acquisition and analysis software, and explored the neural basis for visual attention via single-electrode recordings

Summer 1997

Yale University Section of Cardiology, Diagnostic Imaging Lab
Research Intern

Analyzed image data to evaluate a commercial package for cardiac function estimation



Summer 2005

Stanford University

Instructor for “Introduction to Computer Graphics”

Winter 2005

Teaching Assistant for “Introduction to Computer Vision”

Winter 2002

Teaching Assistant for “Operating Systems”

Fall 2002

Teaching Assistant for “Object-Oriented Systems Design”

TEACHING EXPERIENCE

Brown University

Spring 2000

Head Teaching Assistant for “Introduction to Scientific Computing”

Fall 1999

Teaching Assistant for “Introduction to Neuroscience”

Spring 1999

Teaching Assistant for “The Foundations of Living Systems”

Fall 1998

Teaching Assistant for “Intro to Object-Oriented Programming”

Fall 1997

Teaching Assistant for “Introduction to Neuroscience”

PRODUCTS

Products Released

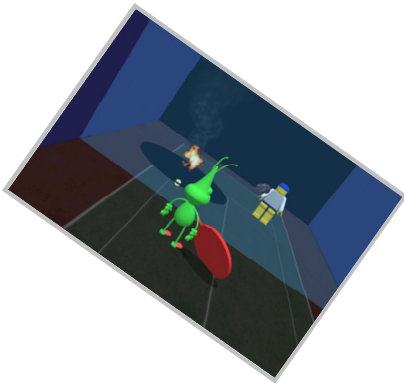
Microsoft Research Songsmith



Developed with the Microsoft Research Advanced Development Team.

PUBLICATIONS

Papers



Badshah A, Gupta S, **Morris D**, Patel S, Tan D. GyroTab: A Handheld Device that Provides Reactive Torque Feedback. *To appear in the proceedings of ACM CHI 2012*, May 2012.

Cohn G, **Morris D**, Patel S, Tan D. Humantenna: Using the Body as an Antenna for Real-Time Whole-Body Interaction. *To appear in the proceedings of ACM CHI 2012*, May 2012.

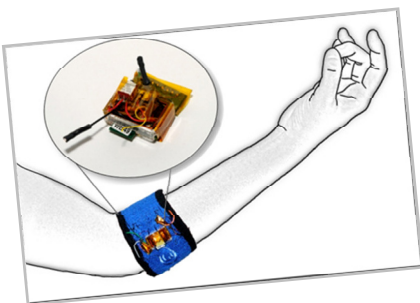
Gupta S, **Morris D**, Patel S, Tan D. SoundWave: Using the Doppler Effect to Sense Gestures. *To appear in the proceedings of ACM CHI 2012*, May 2012.

Kratz L, Saponas TS, **Morris D**. Making Gestural Input from Arm-Worn Inertial Sensors More Practical. *To appear in the proceedings of ACM CHI 2012*, May 2012.

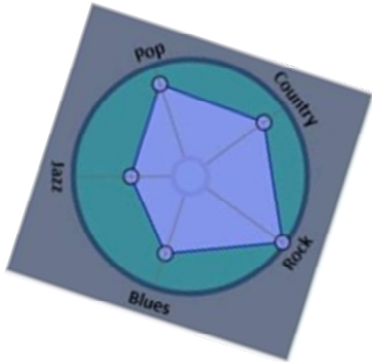
Vardoulakis LP, Karlson A, **Morris D**, Smith G, Gatewood J, Tan D. Using Mobile Phones to Present Medical Information to Hospital Patients. *To appear in the proceedings of ACM CHI 2012*, May 2012.

Morris D, Saponas S, Tan D. Emerging Input Technologies for Always-Available Mobile Interaction. *Foundations and Trends in Human-Computer Interaction*, 4(4), pp. 245-316, November 2011.

Harrison C, Tan D, **Morris D**. Skinput: Appropriating the Skin as an Interactive Canvas. *Communications of the ACM* 54.8, August



2011. Wilcox L, **Morris D**, Tan D, Gatewood J, Horvitz E. Characterizing Patient-Friendly “Micro-Explanations” of Medical Events. *Proceedings of ACM CHI 2011*, May 2011.



Moraveji N, Morris M, **Morris D**, Czerwinski M, Riche N. ClassSearch: Facilitating the Development of Web Search Skills through Social Learning. *Proceedings of ACM CHI 2011*, May 2011. **(Best paper nomination)**

Cohn G, **Morris D**, Patel S, Tan D. Your Noise is My Command: Sensing Gestures Using the Body as an Antenna. *Proceedings of ACM CHI 2011*, May 2011. **(Best paper award)**

Wilcox L, Gatewood J, **Morris D**, Tan D, Horvitz E, Feiner S. Physician Attitudes About Patient-Facing Information Displays at an Urban Emergency Department. *Proceedings of AMIA 2010*, November 2010.

Guillory A, Basu S, **Morris D**. User-Specific Learning for Recognizing a Singer’s Intended Pitch. *Proceedings of AAAI 2010*, July 2010.

Tan D, **Morris D**, Saponas S. *Interfaces on the Go: Enabling Mobile Micro-Interactions with Physiological Computing*. ACM Crossroads Magazine, June 2010.



Wilcox L, **Morris D**, Tan D, Gatewood J. Designing Patient-Centric Information Displays for Hospitals. *Proceedings of ACM CHI 2010*, April 2010. **(Best paper nomination)**

Harrison C, Tan D, **Morris D**. Skinput: Appropriating the Body as an Input Surface. *Proceedings of ACM CHI 2010*, April 2010. **(Best paper award)**

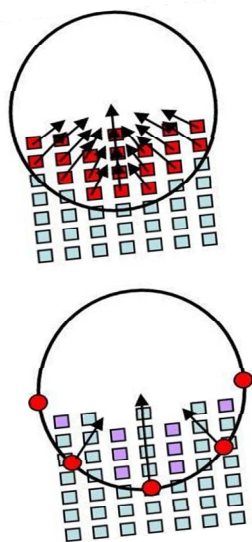
Saponas S, Tan D, **Morris D**, Turner J, Landay J. Making Muscle-Computer Interfaces More Practical. *Proceedings of ACM CHI 2010*, April 2010.

Benko H, Saponas S, **Morris D**, Tan D. Enhancing Input On and Above the Interactive Surface with Muscle Sensing. *Proceedings of ACM Tabletop 2009*, November 2009.

Nichols E, **Morris D**, Basu S, Raphael C. Relationships Between Lyrics and Melody in Popular Music. *Proceedings of the 2009 International Symposium on Music Information Retrieval (ISMIR 2009)*.

Saponas S, Tan D, **Morris D**, Balakrishnan R, Landay J. Enabling Always-Available Input with Muscle-Computer Interfaces. *Proceedings of ACM UIST 2009*, October 2009.





Grimes A, Tan D, **Morris D**. Technological Support for Family Reflections on Health. *Proceedings of ACM Group 2009*, May 2009.

Fiebrink R, **Morris D**, Morris M. Dynamic Mapping of Physical Controls for Tabletop Groupware. *Proceedings of ACM CHI 2009*, April 2009.

Nichols E, **Morris D**, Basu S. Data-Driven Exploration of Musical Chord Sequences. *Proceedings of Intelligent User Interfaces (IUI) 2009*, February 2009.

Morris D, Simon I, Basu S. Exposing Parameters of a Trained Dynamic Model for Interactive Music Creation. *Proceedings of AAI (Association for the Advancement of Artificial Intelligence) 2008* (July 13-17, 2008).

Morris D, Morris M, Venolia G. SearchBar: A Search-Centric Web History for Task Resumption and Information Re-finding. *Proceedings of ACM CHI 2008*, April 2008.

Morris D, Brush A.J., Meyers B. SuperBreak: Using Interactivity to Enhance Ergonomic Typing Breaks. *Proceedings of ACM CHI 2008*, April 2008.

Saponas S, Tan D, **Morris D**, Balakrishnan R. Demonstrating the Feasibility of Using Forearm Electromyography for Muscle-Computer Interfaces. *Proceedings of ACM CHI 2008*, April 2008.

Simon I, **Morris D**, Basu S. MySong: Automatic Accompaniment Generation for Vocal Melodies. *Proceedings of ACM CHI 2008*, April 2008.

Ruffaldi E, **Morris D**, Barbagli F, Salisbury K, Bergamasco M. Voxel-Based Haptic Rendering Using Implicit Sphere Trees. *Proceedings of the 2008 IEEE Haptics Symposium*.

Morris D and Salisbury JK. Automatic Preparation, Calibration, and Simulation of Deformable Objects. *Computer Methods in Biomechanics and Biomedical Engineering* (Taylor & Francis Press), Vol 11.4, p263-279, 2008.

Sewell C, **Morris D**, Blevins H, Dutta S, Agrawal S, Barbagli F, Salisbury K. Providing Metrics and Performance Feedback in a Surgical Simulator. *Computer Aided surgery* (Taylor and Francis Press), 13:2, p63-81, 2008.

White R, **Morris D**. Investigating the Querying and Browsing Behavior of Advanced Search Engine Users. In *Proceedings of the 30th Annual international ACM SIGIR Conference on Research and Development in*

information Retrieval (SIGIR '07), p.255-262.

Edmonds A, White R, **Morris D**, Drucker S. Instrumenting the Dynamic Web. *Journal of Web Engineering (JWE)*, Vol. 6, No. 3 (2007), 243-260.

Morris D, Tan H, Barbagli F, Chang T, Salisbury K. Haptic Feedback Enhances Force Skill Learning. *Proceedings of IEEE World Haptics*, Tsukuba, Japan, March 2007, p21-26. **(Best paper award)**

Sewell C, **Morris D**, Blevins N, Barbagli F, T, Salisbury K. Evaluating Drilling and Suctioning Technique in a Mastoidectomy Simulator. *Proceedings of MMVR (Medicine Meets Virtual Reality) XV*, Long Beach, California, January 2007. *Studies in Health Technology and Informatics*, Volume 125, p427-432.

Sewell C, **Morris D**, Blevins N, Barbagli F, T, Salisbury K. Validating Metrics for a Mastoidectomy Simulator. *Proceedings of MMVR (Medicine Meets Virtual Reality) XV*, Long Beach, California, January 2007. *Studies in Health Technology and Informatics*, Volume 125, p421-426.

Morris D, Sewell C, Barbagli F, Blevins N, Girod S, Salisbury K. Visuohaptic Simulation of Bone Surgery for Training and Evaluation. *IEEE Computer Graphics and Applications*, Vol. 26, No. 4, p48-57, November 2006.

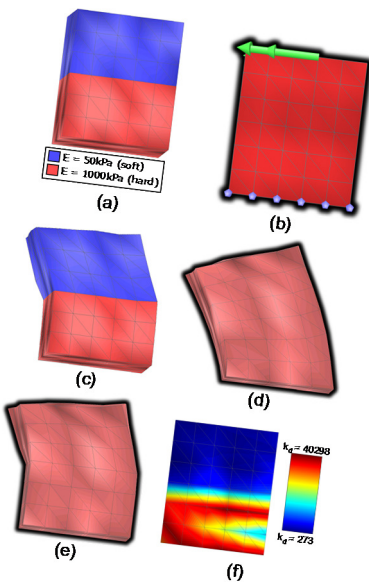
Ojakangas CL, Shaikhouni A, Friehs GM, Caplan AH, Serruya MD, Saleh M, **Morris DS**, Donoghue JP. Decoding movement intent from human premotor cortex neurons for neural prosthetic applications. *Journal of Clinical Neurophysiology*, December 2006, Vol 23.6, p577-584.

Ruffaldi E, **Morris D**, Edmunds T, Barbagli F, Pai DK. Standardized Evaluation of Haptic Rendering Systems. *Proceedings of the 14th IEEE Haptics Symposium*, March 2006, Washington, DC, p225-232.

Sewell C, **Morris D**, Blevins N, Barbagli F, Salisbury K. Achieving Proper Exposure in Surgical Simulation. *Proceedings of MMVR (Medicine Meets Virtual Reality) XIV*, Long Beach, CA, January 2006. *Studies in Health Technology and Informatics*, Volume 119, p497-502.

Meehan M, **Morris D**, Maurer C, Antony A, Barbagli F, Salisbury K, Girod S. Virtual 3D Planning and Guidance of Mandibular Distraction Osteogenesis. *Computer Aided Surgery*, Volume 11, Number 2, p51-62, March 2006.

Morris D, Girod S, Barbagli F, Salisbury K. An Interactive Simulation Environment for Craniofacial Surgical Procedures. *Proceedings of*



MMVR (Medicine Meets Virtual Reality) XIII, Long Beach, CA, January 2005. *Studies in Health Technology and Informatics*, Volume 111, p334-341.

Sewell C, **Morris D**, Blevins N, Barbagli F, Salisbury K. Quantifying Risky Behavior in Surgical Simulation. *Proceedings of MMVR (Medicine Meets Virtual Reality) XIII*, Long Beach, CA, January 2005. *Studies in Health Technology and Informatics*, Volume 111, p334-341.

Morris MR, **Morris D**, Winograd T. Individual Audio Channels with Single Display Groupware: Effects on Communication and Task Strategy. *Proceedings of CSCW (Computer-Supported Cooperative Work) 2004*, Chicago, USA, November 2004, p242-251.

Morris D, Sewell C, Blevins N, Barbagli F, Salisbury K. A Collaborative Virtual Environment for the Simulation of Temporal Bone Surgery. *Proceedings of MICCAI (Medical Image Computing and Computer-Aided Intervention) VII*, Rennes, France, September 26-30 2004. Springer-Verlag Lecture Notes in Computer Science, Volume 3217, p319-327.

Sewell C, **Morris D**, Blevins N, Barbagli F, Salisbury K. An Event-Driven Framework for the Simulation of Complex Surgical Procedures. *Proceedings of MICCAI (Medical Image Computing and Computer-Aided Intervention) VII*, Rennes, France, September 26-30 2004. Springer-Verlag Lecture Notes in Computer Science, Vol. 3217, p346-354.

*Posters,
workshop papers,
and abstracts*

Morris M, **Morris D**. Understanding the Potential for Collaborative Search Technologies in Clinical Settings. Workshop paper presented at the *CIKM 2011 Workshop on Collaborative Information Retrieval*, October 2011.

Morris D, Karlson A. Dynamic Accessibility Requirements for Hospital Patients. Workshop paper presented at the *CHI 2011 Workshop on Dynamic Accessibility*, May 2011.

Morris D, Fiebrink R. Using Machine Learning to Support Pedagogy in the Arts. Workshop paper presented at the *CHI 2011 Workshop on Child Computer Interaction*, May 2011.

Moraveji N, Ringel Morris M, **Morris D**. Supporting the Social Transfer of Web Search Expertise. Workshop presented at the *CHI 2010 Workshop on UI Technologies and Educational Pedagogy*, April 2010.

Wilcox L, **Morris D**, Tan, D, Gatewood J. Using the Electronic Medical Record to Keep Hospital Patients Informed. Workshop paper to be

presented at the *CHI 2010 Workshop on Interactive Systems in Health Care*, April 2010.

Brush AJ, Meyers B, **Morris D**. Step Away From That Desk: Exertion Interfaces in the Workplace. Workshop paper presented at the *CHI 2007 Workshop on Exertion Interfaces*, San Jose, CA, April 2007.

Ruffaldi E, Girod S, Barbagli F, **Morris D**, Bergamasco M, Salisbury K. Haptic simulation of bone placement based on voxel models. Poster paper presented at *CARS (Computer Assisted Radiology and Surgery) XXI*, June 2007, Berlin, Germany.

Sewell C, Blevins NH, Peddamatham S, Tan HZ, **Morris D**, Salisbury K. The Effect of Virtual Haptic Training on Real Surgical Drilling Proficiency. Sketch, *Proceedings of IEEE World Haptics*, Tsukuba, Japan, March 2007, p601-603.

Gaw D, **Morris D**, Salisbury K. Haptically Annotated Movies: Reaching Out and Touching the Silver Screen. *Demo paper presented at the 14th IEEE Haptics Symposium*, March 2006, Washington, DC.

Morris D, Girod S, Barbagli F, Salisbury K. A virtual training environment for mandibular distraction procedures. Presented at *CARS (Computer Assisted Radiology and Surgery) IX, 2005*, Berlin Germany.

Morris D, Girod S, Barbagli F, Salisbury K. Force-feedback in Craniofacial Surgery Simulation. Presented at the *2nd International Conference on Advanced Digital Technology in Head and Neck Reconstruction*, Alberta, Canada, March, 2005.

Conti F, Barbagli F, **Morris D**, Sewell C. CHAI: An Open-Source Library for the Rapid Development of Haptic Scenes. Demo presented at *IEEE World Haptics*, Pisa, Italy, March 2005.

Sewell C, **Morris D**, Blevins N, Barbagli F, Salisbury K. A Simulator for Training a Full Mastoidectomy Procedure. Demo presented at *IEEE World Haptics*, Pisa, Italy, March 2005.

Serruya M, Caplan A, Saleh M, **Morris D**, Donoghue J. The BrainGate Pilot Trial: Building and Testing a Novel Direct Neural Output for Patients with Severe Motor Impairment. *Society for Neuroscience Abstracts, 34th Annual Meeting of the Society for Neuroscience*, San Diego, CA, October, 2004.

Black M, Shaikhouni A, Wu W, **Morris D**, Donoghue J. A direct brain-machine interface for 2D cursor control using a Kalman filter. *Society*

for *Neuroscience Abstracts, 34th Annual Meeting of the Society for Neuroscience, San Diego, CA, October, 2004.*



Mukand J, Williams S, Shaikhouni A, **Morris D**, Serruya M, Donoghue J. Feasibility Study of a Neural Interface System for Quadriplegic Patients. Presented at the *65th Annual Assembly of the American Academy of Physical Medicine & Rehabilitation, October 2004, Phoenix, Arizona.*

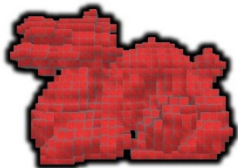
Sewell C, **Morris D**, Blevins N, Barbagli F, Salisbury K. Training the Cognitive and Stylistic Aspects of Surgery Through Simulation. Poster presented at the *Biomedical Computation at Stanford Symposium (BCATS), Stanford, CA, October 2004. Best Poster Award.*

Hatt BW, Donoghue JP, Hatsopoulos N, Friehs GM, Guillory KS, van Wagenen RA, Serruya MD, Caplan AH, **Morris DS**, Saleh M, Surgenor TR. Thoughts Into Actions - From Animal Experiments to Human Prosthesis. Poster presented at the *34th NIH Neural Prosthesis Workshop, October 2003, NIH, Bethesda, Maryland.*

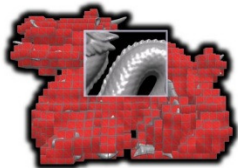
Donoghue JP, Saleh M, Caplan A, Serruya MD, **Morris DS**, Ramchandani S, Ojakangas C, Friehs G. Direct Control of a Computer Cursor By Frontal Cortical Ensembles in Humans: Prospects for Neural Prosthetic Control. *Society for Neuroscience Abstracts, 33rd Annual Meeting of the Society for Neuroscience, New Orleans, Louisiana, 8-12 November, 2003.*



Serruya MD, van Wagenen RA, Guillory KS, Caplan AH, Saleh M, Donoghue JP, **Morris DS**, Hatt BW. BrainGate: Developing a Device to Provide Motor Impaired Patients with a Novel Neural Output. *Society for Neuroscience Abstracts, 33rd Annual Meeting of the Society for Neuroscience, New Orleans, LA, November, 2003.*



Conti F, Barbagli F, Balaniuk R, Halg M, Lu C, **Morris D**, Sentis L, Vileshin E, Warren J, Khatib O, Salisbury K. The CHAI Libraries. Demonstration at *EuroHaptics 2003, July 2003.*



Morris D and Joshi N. Alternative "Vision": A Haptic and Auditory Assistive Device. *CHI 2003 Extended Abstracts, April 2003.*

Zhang S, Curry CT, **Morris DS**, Laidlaw DH. Streamtubes and streamsurfaces for visualizing diffusion tensor MRI volume images. *IEEE Visualization 2000 Work In Progress, October 2000.*

Zhang S, Curry CT, **Morris DS**, Laidlaw DH. Visualizing diffusion tensor MR images using streamtubes and streamsurfaces. Presented at the *Human Brain Project annual meeting, NIH, Bethesda, MD, May 2000.*

Technical Reports

Morris D, Sewell C, Barbagli F, Blevins N, Girod S, Salisbury K. Visuohaptic Simulation of Bone Surgery. Stanford University Department of Computer Science Technical Report 2006-13.

Morris D. Automated Preparation, Calibration, and Simulation of Deformable Objects. Stanford University Department of Computer Science Technical Report 2006-07.

Morris D. Algorithms and Data Structures for Haptic Rendering: Curve Constraints, Distance Maps, and Data Logging. Stanford University Department of Computer Science Technical Report 2006-06.

Morris D and Joshi N. Hybrid Rendering for Interactive Virtual Scenes. Stanford University Department of Computer Science Technical Report 2006-04.

Theses

Morris D. Haptics and Physical Simulation for Virtual Bone Surgery. PhD thesis, Stanford University, August 2006.

Non-technical

Morris D. "Acoustic Slap Rock." 'Reader's Challenge' lesson in *Guitar Player* magazine, July 2006, page 124.

PATENTS ISSUED

Automatic accompaniment for vocal melodies. **Morris DS**, Basu S, Simon I. US Patent Application 20090064851. Published March 12, 2009.

Flaherty JC, Capachione LR, **Morris DS**, Caplan AH, Saleh M, Guillory KS. Neural interface system with embedded id. US Patent Application 20050267597. Published December 1, 2005.

PATENTS PENDING

Sensing Mechanical Energy to Appropriate the Body for Data Input. Tan D, **Morris D**, Harrison C. US Patent Application 20110133934. Published June 9, 2011.

Instructional Tool for Teaching Search Skills. Morris M, Moraveji N, **Morris D**, Czerwinski M, Riche N. US Patent Application 20110136083. Published June 9, 2011.

Touch-Sensitive Display Apparatus Using Sensor Input. Benko H, Saponas S, Tan D, **Morris D**. US Patent Application 20100302137. Published December 2, 2010.

Magnetic Inductive Charging with Low Far Fields. Turner J, Saponas S, Tan D, **Morris D**. Patent Application 20100244767. Published September 30, 2010.

Recognizing Gestures from Forearm EMG Signals. Tan D, **Morris D**, Saponas S, Balakrishnan R. US Patent Application 20090327171. Published December 31, 2009.

Wearable Electromyography-Based Controllers for Human-Computer Interfaces. Tan D, Saponas S, **Morris D**, Turner J. US Patent Application 20090326406. Published December 31, 2009.

Search Query Transformation Using Direct Manipulation. White RW, Bilenko M, Roundthwaite RL, **Morris DS**. US Patent Application 20090144262. Published June 4, 2009.

Search-centric hierarchical browser history. **Morris DS**, Morris M, Venolia G. US Patent Application 20090100021. Published April 16, 2009.

Morris DS, Brush AJB, Meyers BR, Czerwinski MP. Scheduling and Improving Ergonomic Breaks Using Environmental Information. US Patent Application 20090030767. Published January 29, 2009.

Morris DS, Venolia GD, Drucker SM, White RW, Morris MJ. Search Results for Exploratory Searches. US Patent Application 20090006358. Published January 1, 2009.

Morris MJ, Horvitz E, **Morris DS**. Multiple Monitor / Multiple Party Searches. US Patent Application 20090006324. Published January 1, 2009.

Morris DS, White RW. Identification and Use of Web Searcher Expertise. US Patent Application 20080319976. Published December 25, 2008.

Venolia GD, Morris MJ, **Morris DS**. User Interfaces to Perform Multiple-Query Searches. US Patent Application 20080319944. Published December 25, 2008.

Morris DS, Morris MJ, Venolia GD, White RW, Horvitz E, Drucker SM. Exploratory Search Technique. US Patent Application 20080319975. Published December 25, 2008.

Adaptive patient training routine for biological interface system. Flaherty JC, Serruya MD, **Morris DS**, Caplan AH, Saleh M, Donoghue JP. US Patent Application 20070032738. Published February 8, 2007.

Patient training routine for biological interface system. Flaherty JC, Serruya MD, **Morris DS**, Caplan AH, Saleh M, Donoghue JP. US Patent Application 20060167530. Published November 9, 2006.

Flaherty JC, Capachione LR, **Morris DS**, Caplan AH, Saleh M, Guillory KS. Neural interface system and method for neural control of multiple devices. US Patent Application 20050273890. Published December 8, 2005.

INVITED TALKS

- December 2010* "A Healthy Dose of HCI: What HCI and Medicine Can Offer Each Other." Princeton University Computer Science Department colloquium.
- November 2010* "Designing Patient-Friendly Hospital Information Displays." Microsoft's 'World Usability Day' seminar series.
- September 2010* "Designing Patient-Centric Hospital Information Displays." Auburn Regional Medical Center staff colloquium.
- August 2010* "Designing Patient-Centric Hospital Information Displays." Microsoft Connected Health Conference.
- July 2010* "Harnessing Physiological Signals for Interactions." NASA Ames / Singularity University.
- November 2009* "Physiological Sensing for Human-Computer Interaction." 'Conference on Robotic Technologies', the Hague.
- September 2009* "Machine Learning and Computational Creativity." Puget Sound SIG CHI seminar series.
- April 2009* "Using Machine Learning to Help People Make Music." Brown University Computer Science seminar series.
- May 2008* "MySong: Automatic Accompaniment for Vocal Melodies." Stanford University Human-Computer Interaction seminar series.

- May 2008* "MySong: Automatic Accompaniment for Vocal Melodies." Microsoft *Cool Talks* seminar series.
- February 2008* "Computational Music and Creativity." University of Washington Technical Communication seminar series on usability.
- December 2007* "MySong: Automatic Accompaniment for Vocal Melodies." University of Washington "dub" HCI seminar series.
- March 2005* "Clinical Factors in Neural Prosthetic Device Development." Topics in Neuroengineering, Stanford University.
- March 2004* "Haptic Battle Pong: a Networked Haptic Game." *Experimental Gameplay Workshop*, Game Developer's Conference, San Jose, CA.

PROFESSIONAL ACTIVITIES

- Program Committee* ACM CHI 2011, 2012 (Subcommittee Chair for Papers PC)
 ACM IHI (Intl Conf on Health Informatics) 2010, 2012 (Papers PC)
 ACM Creativity and Cognition 2009, 2011 (Papers PC)
 IUI (Intelligent User Interfaces) 2009, 2011 (Papers PC)
 ACM CHI 2008, 2009, 2010 (Papers PC)
 ACM UIST 2008, 2009 (Posters chair)
 ACM UIST 2008 (Papers PC)
- Workshops Organized* Morris D and Secretan J, workshop at ACM CHI 2009:
 Computational Creativity Support: Using Algorithms and Machine Learning to Help People Be More Creative
- Reviewer* IEEE Transactions on Haptics (2008, 2009, 2010, 2011)
 ACM CSCW (Computer-Supported Cooperative Work) (2008, 2011)
 NSF Grant Proposals (2010)
 ACM SIGGRAPH (2010)
 ACM UIST (2007, 2008, 2009, 2010)
 Computer in Biology and Medicine (2009)
 ACM CHI (2006, 2007, 2008, 2009)
 IEEE Human-System Interaction (2009)
 IEEE RO-MAN (2005, 2009)
 Computer Animation and Virtual Worlds (2008)
 MICCAI (Medical Image Computing) (2008)
 Computer Methods and Programs in Biomedicine (2008)
 ACM Transactions on CHI (2008, 2009)
 Journal of Computer Science and Technology (2008)



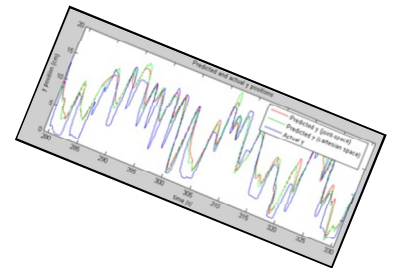
IEEE Haptics Symposium (2008)
 IEEE World Haptics (2005, 2007)
 ACM Virtual Reality Software and Technology (VRST) (2006)
 ACM Transactions on Applied Perception (2006)
 Virtual Reality (2005, 2006)
 IEEE Transactions on Robotics (2005,2006)
 IEEE Transactions on Information Technology in Biomedicine (2005)
 IEEE Transactions on Visualization and Computer Graphics (2005)
 Optical Engineering (2005)
 ACM Symposium on Interactive 3D Graphics (I3DG) (2005)
 Enactive (2005)
 American Control Conference (2004)

Student Volunteer NIPS (Neural Information Processing Systems) 2002

Departmental Service Stanford CS PhD Admissions Committee (2003-2004)
 Stanford CS PhD Program Committee (2002 – 2003)
 Stanford CS PhD Student Representative (2001 – 2002)
 Stanford CS PhD Recruiting Weekend Organizer (2002-2005)

GRANTS AUTHORED OR CO-AUTHORED

Experimental Haptics
 NCIIA Course and Program Grant, awarded (2003)



MUSICAL EXPERIENCE

Bass Bassist for a Bay-area alt-rock/country band, 2005-2006
 Bassist for a Bay-area top-40 cover band, 2005-2006
 Bass sub experience with several Bay-area rock groups, 2004-2006

Guitar Guitarist for a Seattle-area '80s cover band, 2007-present

Vocals Recorded/performed with a university a cappella group, 2000-2001
 Vocals and guitar for a performing folk-rock acoustic duo, 2004-2006
 Recorded and performed backing vocals for several bands

Songwriting Amateur songwriting and home recording
 Song selected as garageband.com's "track of the day", August 2007

SELECTED PRESS

2011 "How to Make a Human Antenna", Discovery News

2010 "Sensors turn skin into gadget control pad", BBC News
 "Microsoft's Skinput turns hands, arms into buttons", CNN
 "Body Acoustics Can Turn Your Arm Into a Touchscreen", New Scientist
 "'Skinput' Turns the Body Into an Input Surface", ZDNet News
 "'Skinput' Turns Your Body Into Touchscreen Interface", TechNews

2009 "The Quest for a Better Keyboard", Forbes
 "Custom Hardware on Surface-style Device", TechFlash
 "Mixing Real and Virtual Controls", Technology Review
 "The Songsmith Flap", EQ Magazine
 "A Look at Microsoft Songsmith", Ars Technica
 "Microsoft Songsmith Backs Up Your Vocals", PC Magazine
 "Microsoft's Songsmith makes music using PC", Seattle PI
 "Microsoft's Songsmith gives singers an algorithmic band", TechFlash
 "Microsoft releases Songsmith: Karaoke in reverse", CNET

2008 "Make Beautiful Music With MySong", Computer Power User
 "An Algorithm to Turn Melodies Into Songs", IEEE Spectrum
 "Microsoft creates 'instant backing band' for singers", New Scientist

2006 "Pass the Virtual Scalpel, Nurse", Wired News

2004 "Controlling movement through thought alone", George Street Journal
 "Getting a Feel for Surgery", UCSC Science Notes

2003 "Fitness Racer: PC Control of an RC Car", Slashdot

2002 "Haptic Battle Pong... the Future of Game Interfaces?", Slashdot
 "Tiqit Handheld PC", Slashdot

2000 "Tetris of Titans", Time Magazine
 "Ultimate Tetris, on a very big screen", New York Times
 "Tetris takes over tower block", BBC News Online
 "Brown students create massive Tetris game on building", CNF
 "The World's Largest Game Of Tetris", Slashdot

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music

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