David L. Jaffe
Curriculum Vitae

Stanford University
Mechanical Engineering Department - Design Group
Thomas F. Peterson Engineering Laboratory (Building 550)
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Education and degrees:

University of Michigan	Ann Arbor, MI	BSE (EE)	1970
Northwestern University	Evanston, IL	MSE (BME)	1973

Major Research Interest:

Use of microcomputer technology in the design and development of rehabilitation devices

Professional Experience:

03/2010 – Present	Stanford University, Associate Director, Alex Tung Memorial Assistive Technology Laboratory at Stanford (ATLAS)
01/2007 - Present	Stanford University, Lecturer, ENGR110/210 "Perspectives in Assistive Technology"
Spring 2007- Present	Stanford University, Student Project Coach, ME113
09/1982 - Present	Stanford University, Mechanical Engineering Department, Design Division. Teaching Assistant, laboratory coach, and project consultant in ME218 - "Smart Product Design"
11/1979 - 05/2007	Palo Alto VA Health Care System, Rehabilitation Research and Development Center, Research Biomedical Engineer.
03/1974 - 11/1979	Hines VA Hospital, Biomedical Engineering Section, Assistant Section Chief.

Professional Organizations:

Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)
Institute of Electrical and Electronics Engineers (IEEE)
Association of Computing Machinery (ACM)

Responsibilities, Activities, and Positions Held:

Member, Board of Directors, RESNA (Rehabilitation Engineering and Assistive Technology Society of North America) 08/2006 - 08/2012

Co-Principal Investigator, VA Merit Review Project, "Using a Simulator to Improve Driving Ability after Brain Injury", September 2003

Principal Investigator, VA Merit Review Project, "Improving Stepping-Over Responses in the Elderly Using Simulated Obstacles", April 1998

VA Project Staff, "Advanced Accelerometry Motion Analysis System"

Webmaster, VA Rehabilitation Research and Development Center's public website and private Intranet website

Member of the Editorial Board, Technology and Disability Journal. 1995 - 2000
http://www.iospress.nl/html/node75.html

Webmaster and Communications Chair, RESNA Special Interest Group on Computer Applications
http://www.resna.org/ProfessOrg/SIGs/SIGSites/SIG11/

Webmaster, RESNA Rehabilitation Engineers and Technologists Professional Specialty Group
http://www.resna.org/ProfessOrg/SIGs/SIGSites/PSGSites/PSG04/

Project design consultant - Stanford University, Mechanical Engineering Department, Smart Product Design, ME218.
http://cdr.stanford.edu/DD/Courses/me218/me218.html

Lecturer, Assistive Technologies Course Sequence, Stanford University, January 2007 - present

Reviewer of conference paper submissions, journal publications, and funding proposals for VA Journal of Rehabilitation Research, National Institutes of Health, National Science Foundation, RESNA, Paralyzed Veterans of America, National Institute of Disability and Rehabilitation Research, Association for Computing Machinery.

Webmaster, Forth Interest Group and Silicon Valley Forth Interest Group
http://www.forth.org/svfig/
http://www.forth.org/svfig/svfig.html

Honors, Awards, and Offices Held:

RESNA Fellow Award - for his continuing, consistent contributions to RESNA, his pioneering efforts in the design and development of assistive technologies, and his pervasive nurturing of the field and his colleagues - June 2009

RESNA Distinguished Service Award - in recognition of creative endeavor and outstanding achievement in promoting the advancement of rehabilitation through technology. June 1999.

Received several VAPAHCS Certificate of Appreciation and Service Awards

Program Chair - Assets '96 Conference, Vancouver, British Columbia, Canada
http://www.acm.org/sigcaph/assets/assets96/program96.txt

"Computer Hero of 1994" -The Computer Journal

Chairman of the Membership Committee of the Rehabilitation Society of North America (RESNA). 1988-1990.

Member of the Board of Directors of the Rehabilitation Society of North America (RESNA). 1987-1990.

Chairman of the Rehabilitation Society of North America (RESNA) Special Interest Group on Computer Applications. 1985-1990

Invited speaker - IISF/ACM Japan International Symposium - Computers as our Better Partners. Tokyo, Japan, March 1994.

Invited speaker - Rochester Forth Conference, Rochester, NY - June 1992.

Invited speaker - 2nd annual Rehabilitation Engineering: "The Bridge to Independence" Conference in Scranton, PA - September 1991.

Invited speaker - Fourth Annual Symposium on Rehabilitation Technology, Oklahoma City - March 1990.

Invited speaker - Rehabilitation Engineering International Seminar in Yokohama, Japan - September 1988.

"An Ultrasonic Head Position Interface for Wheelchair Control" judged "Best Paper of Session", Fifteenth Annual Hawaiian Conference on System Sciences, January 1982.

Finalist in National Competition for Personal Computer Applications to Aid the Handicapped Competition, Washington, D.C., October 1981.

First Place Regional Winner in First Annual Search for Personal Computer Applications to Aid the Handicapped Competition, San Francisco, CA, August 1981.

First Prize received for commercially funded projects; "Smart Wheelchair", National Computer Conference, Personal Computing Festival, May 1981.

Received NIH Fellowship for Master's studies at Northwestern University 1970 - 1973.

Grants and Funding:

VA Merit Review funding received for, "Using a Simulator to Improve Driving Ability after Brain Injury", September 2003.

Equipment funding received for VA DriveSafety Driving Simulator, August 2003.

VA Merit Review funding received for "Improving Stepping-Over Responses in the Elderly Using Simulated Obstacles", April 1998.

VA Merit Review Pilot funding received for "Obstacle Avoidance Training with Computer Simulated Environments", October 1996.

Funding received for construction of two mechanical fingerspelling hands for evaluation by Gallaudet University, April 1992.

Funding received from VA Rehabilitation Evaluation Unit for commercial prototype construction of four Ultrasonic Head Controlled Wheelchairs, February 1986.

Funding received to pursue development of "An Ultrasonic Head Control Unit" from the Paralyzed Veterans of America, May 1982.

Funding received from James O. Rice and Associates for the presentation of the "Smart Wheelchair" at the ASME Design Engineering Conference and the National Computer Conference. (April-May, 1981; Chicago, IL)

Selected Research and Development Accomplishments:

Ultrasonic Head Control: This project was the first to employ Polaroid's distance ranging technology in an application other than camera focusing. Its rehabilitation use permits quadriplegic wheelchair users to control their mobility by tilting their head in the direction of desired travel. (1983)

Voice Response Information Dissemination: Software for a DECtalk speech synthesizer was developed to provide computer-based information dissemination over the telephone for the participants of the Blind Softball World Series in Ithaca, NY. (1984)

Embedded high-level language: A Forth-based language was developed for battery-powered projects that require a small code size and quick execution speed. Its ability to download code for compilation to the application hardware greatly facilitates testing and debugging of rehabilitation devices developed at the Rehab R&D Center. (1985)

Fingerspelling Hand: A unique way of representing letter pairs that requires 364 entries instead of 676 (26*26) has been implemented, greatly reducing memory requirements in a device that provides receptive communication to people who are deaf/blind. (1992)

Accelerometry Data Collection: A high-speed arctangent routine that employs 16 bit integers, has controllable precision, and is accurate to .01 degrees has been coded. It is able to process accelerometric data from stroke patients as it is being collected. (1999)

Accelerometry Data Acquisition System: Data acquisition code that re-writes it own program based upon user-entered database parameters is being implemented. This feature is key in the development of a flexible data acquisition system. (2000)

Smart Wireless Sensors: Wearable accelerometers and pressure sensors that acquire and transmit data to a central base station for analysis. (2003)

Publications:

As the primary activity of a Research Biomedical Engineer is the design and development of the hardware and software for clinical devices, most publications will be in the proceedings of professional conferences.

2005

Storms J, Gurga JJ, Poole JH, Jaffe DL, Brodd E, and Lew HL, Driving after Traumatic Brain Injury: Contributions of Driving Simulator and On-Road Evaluations, *Proceedings of the 85th Annual AOTA Conference and Expo*, Long Beach, CA, May 12 - 15, 2005.

Lew HL, Poole JH, Lee EH, Jaffe DL, Huang HC, and Brodd E: Predictive Validity of Driving-simulator Assessments following Traumatic Brain Injury: A Preliminary Study, *Brain Injury*, 19(3):233-248, March 2005.

Jaffe, DL: "An Overview of Virtual Reality in Rehabilitation", presentation for HURIC, February 25, 2005.

2004

Lew HL, Poole JH, Lee EH, Huang HC, Jaffe DL, and Brodd E: Driving Performance after TBI: Assessment with Driving Simulator and On-road Evaluations. In press.

Jaffe DL, "Driving Simulator", Presentation at the Silicon Valley Forth Interest Group Meeting, Sunnyvale, CA, October 23, 2004.

Jaffe DL, "An Overview of Virtual Reality in Rehabilitation", Proceedings of the 26th Annual International Conference of the IEEE EMBS, San Francisco, CA, September 1, 2004.

Jaffe DL, "Methodology for Using a Simulator to Assess and Improve the Driving of Individuals after Brain Injury", Proceedings of the RESNA 2004 Annual Conference, Orlando, FL, June 21, 2004.

Jaffe DL, "An Overview of Virtual Reality in Rehabilitation", Tele-presentation at HURIC to two Japanese classes, Burlingame, CA, June 10, 2004.

Jaffe, David L., Brown, David A., Pierson-Carey, Cheryl D., Buckley, Ellie L., and Lew, Henry L., "Stepping-Over Responses to Improve Walking in Individuals with Post-Stroke Hemiplegia", *Journal of Rehabilitation Research and Development*, 2004 41(3a): 283-292.

Lew HL, Poole JH, Lee E, Jaffe DL, and Brodd E., "Predictive Validity of Driving Simulator Assessments following Traumatic Brain Injury", Submitted to AAP Conference, Albuquerque, NM, March 2004.

Jaffe DL, "Using a Simulator to Assess and Improve Driving Ability" Presentation to Stanford Medical School Residents, Stanford, CA, February 17, 2004.

2003

Lew HL, Huang HC, Lee EH, Jaffe DL, Poole, JH, and Brodd E, "Driving Performance after TBI: Assessment with Driving Simulator and In-car Evaluation", *American Journal of PM&R*, Submitted.

Lew HL, Brodd E, Date ES, Huang H, and Jaffe, DL: Driving Issues after TBI, In *Traumatic Brain Injury, Veterans Health Initiative*, Employee Training Program, Document Number 03.VHI.TBI.W.A, Catalog Number SPVET-EES-A139, October 2003, 113-116.

Jaffe, David L., " Using Augmented Reality to Improve Walking in Stroke Survivors", *Proceedings of the RO-MAN 2003 Conference*, Burlingame, CA, October 2003.

Jaffe, David L., "Using Augmented Reality to Improve Gait of Stroke Survivors", *RESNA 2003 Research Symposium*, Atlanta, GA, June 22, 2003.

Jaffe, David L., "Using a Simulator to Assess Driving Ability after Stroke, TBI, and SCI", *Proceedings of the RESNA 2003 Annual Conference*, Atlanta, GA, June 21, 2003.

Jaffe, David L., "Applications of Technology in Rehabilitation Research and Development Projects", *Association of Academic Physiatrists Conference*, Fort Lauderdale, FL, March 2003.

Jaffe, David L., " Establishing and Maintaining a Web Site", *Association of Academic Physiatrists Conference*, Fort Lauderdale, FL, March 2003.

Jaffe, David L., "Using a Simulator to Assess the Driving Ability of Veterans following Stroke, TBI, and SCI: Results of a Pilot Study", *CSUN Technology and Persons with Disabilities Conference, Los* Angeles, CA, March 2003.

Jaffe, David L., "Using Augmented Reality to Improve Walking in People following Stroke", *Proceedings of the Medicine Meets Virtual Reality Conference*, Newport Beach, CA, January 2003.

2002

Brown, David A, Jaffe, David L, and Buckley, Ellie L, CSM 2002 Proceedings: "Use of Virtual Objects to Improve Gait Velocity in Individuals with Post-Stroke Hemiplegia", *Neurology Report*, Volume 26, No. 2, June 2002, page 105.

Jaffe, David L., "Finding and Using Rehabilitation Resources on the Internet, Concurrent Session, *RESNA 2003 Conference*, Minneapolis, MN, June 2002.

Jaffe, David L., "Using Virtual Reality to Improve Walking following Stroke", *CSUN Technology and Persons with Disabilities Conference*, Los Angeles, CA, March 2002.

Jaffe, David L., "Results Using Stepping-Over Response Training to Improve Walking in Individuals with Post-Stroke Hemiplegia", *Proceedings of the 3rd VA National Rehabilitation Research and Development Conference*, Arlington, VA, February 10 - 12, 2002.

2001

Jaffe, David L., Buckley, Ellie L.; Smith, Kyle A.; and Yap, Ruth, Using Virtual Reality to Improve Walking in People with Stroke, *Proceedings of RESNA 2001 Annual Conference*, Reno, NV, June, 2001.

Jaffe, David L., Technology Transfer of the Ralph Fingerspelling Hand, Intellectual Property in the VA: Changes, Challenges, and Collaborations, Arlington, VA, April, 2001.

2000

Jaffe, David L., Buckley, Ellie, Pierson-Carey, Cheryl D., and Brown, David A., Improving Stepping-over Responses in the Elderly using Simulated Obstacles, *2nd National Rehabilitation Research and Development Conference*, Arlington, VA, February, 2000.

Nakahara, Alan K., Jaffe, David L., and Sabelman, Eric E., Development of a Second Generation Wearable Accelerometric Motion Analysis System, *2nd National Rehabilitation Research and Development Conference*, Arlington, VA, February, 2000.

Sabelman, Eric E., Jaffe, David L., Kenney, Deborah E., Lee, Beatrice B., Nakahara, Alan K., Shor, Peggy, Troy, Betty S., and Willits, Margaret, Accelerometric Mobility Diagnosis and Treatment, *2nd National Rehabilitation Research and Development Conference*, Arlington, VA, February, 2000.

1999

Nakahara, Alan K., Sabelman, Eric E., and Jaffe, David L., Development of a Second Generation Wearable Accelerometric Motion Analysis System, *Proceedings of the First Joint Meeting of BMES & EMBS*, Atlanta, GA, October, 1999.

Jaffe, David L., Training Elderly People to Step over Obstacles using Self Visualization Techniques, *Proceedings of the RESNA '99 Annual Conference*, Long Beach, CA, June, 1999.

1998

Sabelman, EE, Troy, BS, Kenney, D, Gabrielli, S, Yap, R, Jaffe, DL, Nakahara, AK, and Winograd, CH, Accelerometry Motion Analysis: A New Method for Mobility Diagnosis and Therapy, *1st National Rehabilitation Research and Development Conference*, Washington, DC, October, 1998.

Jaffe, David L, Use of Virtual Reality Techniques to Train Elderly People to Step over Obstacles, *Proceedings of the 1998 CSUN Technology and Persons with Disability Annual Conference*, Los Angeles, CA, March 13, 1998.
http://www.dinf.org/csun_98/csun98_001.htm - Paper
http://guide.stanford.edu/People/jaffe/csun98/sld001.htm - Slides

1995

Jaffe, David L., Ralph Fingerspelling Hand, *Proceedings of the Technology and Persons with Disabilities Conference*, Los Angeles, CA, March, 1995.

Jaffe, David L., Rehabilitation Research and Development Center, *Technology and Disability*, Elsevier Science Ireland, Ltd., Volume 4, 1995, p149-167.

Jaffe, David L., The Relationship of Interfaces for People with Disabilities and Multimedia, *NSF / Multimedia '95 Workshop on Adaptive Multimedia Technologies for People with Disabilities*, San Francisco, November, 1995.

1994

Jaffe, David L., Rehabilitation Projects and Technology Transfer Activities of the Rehabilitation Research and Development Center, *Proceedings of the IISF/ACM Japan International Symposium - Computers as our Better Partners*. Tokyo, Japan, March, 1994.

Jaffe, David L., Opportunities for Commercialization through Technology Transfer, *Proceedings of the Technology and Persons with Disabilities Conference*, Los Angeles, CA, March, 1994.

Jaffe, David L., RR&D's Bag of Technology Transfer Tools, *Proceedings of the 17th Annual RESNA Conference*, Nashville, TN, June, 1994.

Jaffe, David L., Evolution of Mechanical Fingerspelling Hands for People who are Deaf-blind, *Journal of Rehabilitation Research and Development*, Vol. 31 No. 3, August, 1994, pp 236-244.

Jaffe, David L., An Overview of Programs and Projects at the Rehabilitation Research and Development Center, *Proceedings of Assets '94*, Marina del Rey, CA, October, 1994.

1993

Jaffe, David L., Third Generation Fingerspelling Hand, *Proceedings of the Technology and Persons with Disabilities Conference*, Los Angeles, CA, March, 1993.

Jaffe, David L., The Development of a Third Generation Fingerspelling Hand, *Proceedings of the 16th Annual RESNA Conference*, Las Vegas, NV, June, 1993.

1992

Jaffe, David L., Responsive Environment, *Proceedings of the Technology and Persons with Disabilities Conference*, Los Angeles, CA, March, 1992.

Jaffe, David L., Responsive Environment Project - Transparent Navigation Assistant, *Proceedings of the 15th Annual RESNA Conference*, Toronto, Ontario, CANADA, June, 1992.

Jaffe, David L., Forth Application in Devices Serving Persons with Disabilities, *Proceedings of the Rochester Forth Conference*, Rochester, NY, June, 1992.

Jaffe, David L., The Role of Interfaces in the Design and Development of Devices for People with Disabilities, *Rehab Management Magazine*, Nov/Dec, 1992.

1991

Jaffe, David L., Technology Transfer - Moving Research out of the Laboratory and into Commercialization, *Proceedings of the Technology and Persons with Disabilities Conference*, Los Angeles, CA, March 1991.

Jaffe, David L., The New Age of Adaptive Computer Technology - Instructional Institute, *71st Annual Conference and Exposition*, Cincinnati, OH, June, 1991.

Jaffe, David L., Low Vision - The Reference - A Case Study of Using Disk Media to Disseminate Bibliographic Information, *Proceedings of the 14th Annual RESNA Conference*, Kansas City, MO, June, 1991.

1990

Jaffe, David L., A Case Study: The Ultrasonic Head Controlled Wheelchair and Interface, *OnCenter - Technology Transfer News*, Volume 1, Number 2, March, 1990.

Jaffe, David L., The Rehabilitation Evaluation Unit: facilitating Technology Transfer for VA RR&D Centers, *OnCenter - Technology Transfer News*, Volume 1, Number 2, March, 1990.

Jaffe, David L., Research and Development Projects at RR&D, *Proceedings of the Technology and Persons with Disabilities Conference*, Los Angeles, CA, March, 1990.

Jaffe, David L., Ultrasonic Head Controlled Wheelchair/Interface - A Case Study in Development and Technology Transfer, *Proceedings of the 13th Annual RESNA Conference*, Washington, DC, June, 1990.

McKinley, Janice and Jaffe, David L., Test/Questionnaire Adminsitration with a DECtalk Speech Synthesizer, *AER Conference*, Washington, DC, July, 1990.

1989

Jaffe, David L., Human-Machine and Human-Information Interfaces, *Abstracts of the AAAS Annual Meeting*, San Francisco, January, 1989

Jaffe, David L., Dexter II - The Next Generation Mechanical Fingerspelling Hand for Deaf-Blind Persons, *Proceedings of the 12th Annual RESNA Conference*, New Orleans, June, 1989.

Jaffe, David L., DEXTER - A Fingerspelling Hand*, OnCenter - Technology Transfer News*, Volume 1, Number 1, June, 1989.

1988

Jaffe, David L., Forth in Rehabilitation Applications, *Dr. Dobbs Toolbook of Forth*, Volume II, M&T Publishing, Chapter 25, pp 369-394.

Jaffe, David L., Transparent Access to Sources of Computer-based Rehabilitation Information, *Proceedings of the International Conference of the Association for the Advancement of Rehabilitation Technology*, Montreal, June, 1988.

Jaffe, David L., Computer-based Rehabilitation Projects at the Palo Alto Veterans Administration Medical Center, *Proceedings of the Rehabilitation Engineering International Seminar*, Yokohama, Japan, September, 1988.

Jaffe, David L., Rehabilitation Research and Development Projects at the Palo Alto Veterans Administration Medical Center, *Proceedings of the Fourth Annual Conference on Computer Technology / Special Education / Rehabilitation*, California State University at Northridge, Northridge, CA., November, 1988.

Gilden, Deborah and Jaffe, David L., Dexter - a Robotic Hand Communication Aid for the Deaf-Blind, *International Journal of Rehabilitation Research*, 1988, II (2), pp198 - 199.

1987

Jaffe, David L., Speaking in Hands, *SOMA: Engineering for the Human Body*, Volume 2, Number 3, October, 1987, pp 6-13.

Jaffe, David L., Rehabilitation Technology: Research Projects at the Palo Alto VA Medical Center, *Proceedings of the Third Annual Conference on Computer Technology / Special Education / Rehabilitation*, California State University at Northridge, Northridge, CA., October, 1987.

Jaffe, David L., New Information Technology and its Potential in the Rehabilitation Field, *Report of the NIDRR National Meeting on Information and Rehabilitation*, Washington, DC, October, 1987.

1986

Jaffe, David L., Dexter - A Robotic Communication Aid for the Deaf-Blind, *Proceedings of the Ninth Annual Conference on Rehabilitation Engineering*, June, 1986, Minneapolis, MN.

Jaffe, David L., A Voice-Output Questionnaire Administrator, *Proceedings of the Voice I/O Systems Application Conference*, September, 1986, Alexandria, VA.

Jaffe, David L., A Tactile Graphic Braille Display, *Proceedings of the Computer Technology and Persons with Disabilities Conference*, California State University at Northridge, Northridge, CA., October, 1986.
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1985

Jaffe, David L., Polaroid Ultrasonic Ranging Sensors in Robotic Applications*, Robotics Age*, v. 7(#3) pp. 23-& 1985.

Jaffe, David L., Alternate Access Methods for Users of Computer-Based Information Systems, *Proceedings of the Eighth Annual Conference on Rehabilitation Engineering*, June, 1985, Memphis, TN.

Jaffe, David L., Alternate Access Methods for Enhancing Rehabilitation Information Exchange, *Proceedings of the 38th Annual Conference on Engineering and Medicine in Biology*, September, 1985, Chicago, IL.

Jaffe, David L., Alternate Access Methods for Users of Computer-Based Information Systems, *Proceedings of the Computer Technology and Persons with Disabilities Conference*, October, 1985, California State University at Northridge, Northridge, CA.

1984

Jaffe, David L., Rehabilitation Information Project, *Proceedings of the Second International Conference on Rehabilitation Engineering*, June, 1984, Ottawa, Canada.

Jaffe, David L., Forth in Rehabilitation Applications, *Forth Dimensions*, Vol 6, Num 2, July/August, 1984.

Jaffe, David L., The Use of Polaroid Ultrasonic Distance Ranging Sensors in Rehabilitation Applications, *Proceedings of the Symposium on Biosensors*, September, 1984, Los Angeles, CA.

1983

Jaffe, David L., A Computerized Message System for the Rehabilitation Community, *Proceedings of the Eighth Annual Computer Faire*, March 18, 1983, San Francisco, CA.

Jaffe, David L., Ultrasonic Wheelchair Control, *Medical Electronics*, April, 1983, p114-117.

Jaffe, David L., A Design/Development Methodology for Rehabilitation Devices Using Embedded Microcomputers, *Proceedings of the Sixth Annual Conference on Rehabilitation Engineering*, June, 1983, San Diego, CA.

Jaffe, David L., Ultrasonic Head Control Unit, *Proceedings of the Sixth Annual Conference on Rehabilitation Engineering*, June, 1983, San Diego, CA.

Jaffe, David L. and Gaines Ron F., Ultrasonic Head Control Unit, *Archives of Physical Medicine and Rehabilitation,* v. 64(#10) pp. 524-524 1983.

1982

Jaffe, David L., An Ultrasonic Head Position Interface for Wheelchair Control, *Proceedings of the Johns Hopkins First National Search for Personal Computer Applications to Aid the Handicapped*, Washington, D.C., October/November, 1981 and *Fifteenth Hawaiian International Conference on System Sciences*, January, 1982.

Jaffe, David L., Talking Computerized Bulletin Board System, *Proceedings of the Seventeenth Annual AAMI Meeting*, San Francisco, May, 1982.

Jaffe, David L., ETCETERA: A Computer Access Project for the Visually Impaired, *Proceedings of the Fifth Annual Conference on Rehabilitation Engineering*, August, 1982, Houston, Texas.

Jaffe, David L., An Ultrasonic Head Position Interface for Wheelchair Control, *Journal of Medical Systems*, 6(4):337-42, August, 1982.

1981

Jaffe, David L., Index Separator Extracts all Disk Formats, *Electronics*, v. 54(#2) pp. 139-139 1981.

Jaffe, David L., Smart Wheelchair, *Proceedings of the Sixth West Coast Computer Faire*, San Francisco, CA, April, 1981.

Jaffe, David L., Head - Controlled / Smart Wheelchair, *Proceedings of ASME Design Engineering Conference*, April, 1981.

Jaffe, David L., Smart Wheelchair, *Proceedings of the Fourth Annual International Rehabilitation Engineering Conference*, Washington, DC, August, 1981.

La, William H.T.; Koogle Timothy A.; Jaffe, David L.; and Leifer, Larry J., Microcomputer-Controlled Omnidirectional Mechanism for Wheelchairs, *IEEE Transactions on Biomedical Engineering,* v. 28(#8) pp. 594-594 1981.

Jaffe, David L., Toward Total Mobility: An Omnidirectional Wheelchair*, Proceedings of the Fourth Annual International Rehabilitation Engineering Conference*, Washington, DC, August, 1981.

Jaffe, David L., Microcomputer Controlled Omnidirectional Mechanism for Wheelchairs, *Proceedings of EMBS Conference*, Houston, Texas, September, 1981.

Selected public presentations and activities:

2010

ME220 Lecture – Ultrasonic Transducers

DeVry University – Introduction to Assistive Technology

Faculty Forum – Report on Perspectives in Assistive Technology Course

2009

ME113 Lecture – Examples of the Design Process

2008

VA Spinal Cord Injury – Assistive Technology Course at Stanford

2007

UC Santa Cruz – Projects at the VA Rehab Research and Development Center

2006

Santa Clara University - Projects at the VA Rehab Research and Development Center
UC Santa Cruz - Projects at the VA Rehab Research and Development Center

2005

Mission College – Applying Engineering to Benefit Individuals with Disabilities

San Francisco State University – An Overview of Virtual Reality in Rehabilitation

2004

EMBC - An Overview of Virtual Reality in Rehabilitation

HURIC - An Overview of Virtual Reality in Rehabilitation

Cool Product Expo – Ralph Fingerspelling Hand demonstration

VA Conference – Using a Simulator to Assess Driving Ability after Brain Injury

Stanford Medical School Residents – Using a Simulator to Assess and Improve Driving Ability

2003

Wheeled Mobility Summit – Intuitive and Socially Acceptable Interface for a Powered Wheelchair

ME396 – Design for Individuals with Special Needs

SRI Medical Products Forum - Design for Individuals with Special Needs

Honda Research – Design for Individuals with Special Needs

EE201A Electrical Engineering Graduate Seminar - Design for Individuals with Special Needs

AAP – Establishing and Maintaining a Website

AAP – Applications of Technology in Rehabilitation Research and Development Projects

MMVR – Using Augmented Reality to Improve Walking in Individuals following Stroke

2002

VA Conference – Results Using Stepping-Over Response Training to Improve Walking in Individuals with Post-Stroke Hemiplegia

Telemedicine Conference – Using Telerehabilitation to Improve Walking in Individuals following Stroke

PVA Summer Scholars Program - Using Augmented Reality to Improve Walking in Individuals following Stroke

2001

VA Conference – Technology Transfer of the Ralph Fingerspelling Hand

Telerehabilitation State of the Science Conference – Using Virtual Reality and Telerehabilitation to Improve Walking in Individuals following Stroke

Movement Disorders Conference – Using Virtual Reality to Improve Walking in People with Stroke

2000

VA Conference – Improving Stepping-Over Responses in the Elderly using Simulated Obstacles

VA Conference – Mechanisms for Technology Transfer

IEEE EMBS – Assistive Technology for Persons with Disabilities

SDSU – Computer Access for People with Disabilities

1999

Interfaces for People with Disabilities, class presentation in CS 377A / Music 252 Human-Computer Interface Technology, Stanford University, November 8.
http://guide.stanford.edu/People/jaffe/SU99.pdf

An Overview of Rehabilitation Research Projects at the Palo Alto VA Health Care System presented at employment ACCESS '99: Access Solutions for Employment, 1st National Conference, Palo Alto, CA, September 27 - 28.

An Overview of Rehabilitation Research Projects at the Palo Alto Health Care System presented at Bridges to the Millennium: Breaking Barriers, 7th Open Conference Addressing the Employment of People with Disabilities, US Geological Survey, Menlo Park, CA, July 27 - 29.

Using the Internet, RESNA '99 Concurrent Session, Long Beach, CA, June 27.

http://guide.stanford.edu/People/jaffe/RESNA99/sld001.htm

An Overview of Rehabilitation Research Projects, Java in Societal Automation, Santa Clara, CA, June 23.
http://Jaffe:Lzq32Lk7@www.jisa99.com/restricted/Jaffe.pdf

Series Approximations for Functions in Forth, Silicon Valley Forth Interest Group meeting, Mt. View, CA, February 27.
http://guide.stanford.edu/People/jaffe/SVFIG99/trig.html

1998

Interfaces for People with Disabilities, class presentation in EE 2961, Human Computer Interface Design, San Jose State University, November 10.
http://guide.stanford.edu/People/jaffe/SJSU98/sjsu98.htm

Demonstration of Ralph Fingerspelling Hand to Lesley Stahl on 60 Minutes, CBS, March 29.

1997

Class presentation - Interfaces for People with Disabilities, San Jose State University, November 4.
http://guide.stanford.edu/People/jaffe/SJSU97/sjsu.html

Non-Speech Interfaces & Universal Design Issues, AVIOS '97, September 11.
http://guide.stanford.edu/People/jaffe/AVIOS/title.htm

1996

Program Chairman for Assets '96 Conference, Vancouver, BC, April 11-12.

Participation at Aragon High School Technology Fair, San Mateo, CA, April 18.

'Introduction to the Internet', Workshops, 10th Annual National Symposium on Information Technology, Myrtle Beach, SC, May 5 - 9.

'Introduction to the Internet', Morning Seminar, 19th Annual RESNA Conference, Salt Lake City, UT, June, 1996.

1995

Presentation at the Technology & Society Meeting, Mt. View, CA, February 7.

Presentation at Stanford, Computer Science, Terry Winograd, Professor, Stanford, CA, February 10.

Presentation at Career Day, Palo Alto High School, Palo Alto, CA, February 15.

Presentation at Career Day, Gunn High School, Palo Alto, CA, April 26.

Participation at Technology for Independent Living Fair, Menlo Park, CA, May 19.

Organization and presentation at VA Prosthetics trainee tour, Palo Alto, CA, September 28.

Participation at Lockheed Disability Awareness Day, Sunnyvale, CA, October 25.

1994

Presentation at the USGS Accessible Technology Conference, Lucy Stern Community Center, Menlo Park, CA, July 29.

Participation at the University of New Mexico and Scandia Labs Workshop on Assistive Technology Futures Think Tank, Albuquerque, NM, September 14-16.

Participation at the Lockheed Disability Awareness Day, Sunnyvale, CA, October, 11.

Presentation at Stanford, Medical Informatatics, Larry Fagan, Professor, Stanford, CA, November 15.

Presentation at Forth Computer Club meeting, Sacramento, CA, November 23.

Presentation at BayChi meeting, Palo Alto, CA, December 13.

1992

'Enhancing the User Interface' - Instructional Course, 15th Annual RESNA Conference, Toronto, Ontario, CANADA, June, 1992.

1991

'Enhancing the User Interface' - Instructional Course, 14th Annual RESNA Conference, Kansas City, MO, June, 1991.

'Adaptive Technology Developments', A presentation to the Santa Clara Chapter of the Occupational Therapy Association of California, San Jose, August, 1991.

'Research Developments Fostering Independence' - A presentation at 2nd Annual Rehabilitation Engineering Conference: "The Bridge to Independence", Scranton, PA, September, 1991.

1987

'New Research Promoting Independence for Disabled Individuals', First Annual Conference on Employment of the Disabled, Miami, FL, March, 1987.

'Rehabilitation Research and Development Projects at the Palo Alto VA Medical Center', Closing the Gap Conference, Minneapolis, MN, October, 1987.

'The Role of Technology and Research in Rehabilitation', United Cerebral Palsy Associations of New York State Annual Fall Conference, Ellenville, NY, November, 1987.

1986

'Human-Machine Interfaces', IEEE Short Course on Rehabilitation Engineering, Palo Alto, CA, February, 1986.

'Rehabilitation Applications of the DECtalk Speech Synthesizer', Computer Technology for Disabled Conference, Palo Alto, CA, March 1986.