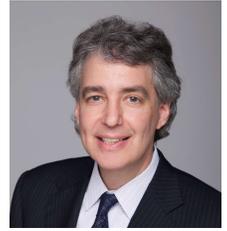


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Dr. Rosenberg has worked on many high-profile cases and advanced engineering projects for a wide range of Fortune 500 companies, including Google, Samsung, Amazon, Boeing, IBM, Disney, Uber, Lyft, Nintendo, Dell, AT&T, Mercedes, BMW, Zillow, Motorola, Ericsson, LG, Sony, HTC, Maxell, Huawei, Mattel, United States Army, United States Air Force, Federal Aviation Administration, and many others.

Dr. Rosenberg has been retained as an expert witness more than 150 times, for both plaintiffs and defendants, assisting clients in intellectual property and trade secret cases in the areas of user interface, software design and architecture, and human factors for mobile, web, desktop, embedded, and server environments.

Dr. Rosenberg has testified at trial eight times in both State and Federal courts, worked on over 30 IPR cases, six ITC cases, and has testified at 60 depositions, as well as before the USPTO.

Dr. Rosenberg is an accomplished software architect, software engineer, user interface designer, human factors engineer, and systems engineer with extensive expert witness experience, specializing in software and user interface design, as well as human factors issues, for mobile, web, desktop, server, and embedded software.

Dr. Rosenberg specializes in software engineering, user-centered design, information architecture, user experience, systems engineering, GPS, object-oriented analysis, complex systems, and modeling and simulation. He has extensive experience across the entire software design and development life cycle, applied to a wide range of domains, from mobile devices to enterprise-class, mission-critical applications.

He has published 25 research papers in professional journals and conference proceedings on user interface design, computer graphics, and the design of spatial, stereographic, and auditory displays.

His company, Global Technica, has been a preferred engineering supplier to Boeing since 1997, designing, analyzing, and implementing numerous projects in Air Traffic Control, Missile Defense Systems, Army Communications, Unmanned Aerial Vehicles, Modelling and Simulation, Command and Control, and Cyber and Homeland Security Applications.

Dr. Rosenberg is a software architect and developer with experience in C, C++, C#, and Java.

Dr. Rosenberg designed the first two-way pager for AT&T in 1995 and 1996. This high-profile project involved designing the features, user interface, and user interaction, as well as all graphical design standards.

He is the founder and CEO of a Seattle-based technology company that focuses on location-tracking applications for GPS-enabled smartphones. He is the inventor, designer, and author of several GPS mobile applications for iPhone and Android devices.

He is a co-founder of two medical technology companies, Healium and StratoScientific. Healium brought patients' electronic medical records into augmented reality for emergency room physicians. StratoScientific developed a smartphone stethoscope and advanced software applications for use in telemedicine.

He was the Chief Technology Officer of DataPrism, which produced an object-oriented application platform for authoring and deploying rich, networked solutions that run in web browsers on mobile devices. DataPrism focused on virtualizing computing to allow applications to run in web browsers.

He was the entrepreneur in residence for a Los Angeles based venture capital company focusing on investments in mobile technology companies and entertainment media companies.

He designed a complete VoIP home and office portable phone system for the consumer and business markets, including features such as Microsoft Outlook integration, photo and video capabilities, web browsing, internet radio, file browsing, and file sharing.

He designed and developed interactive multimedia games and educational software for children and adults, and was responsible for functional specification, software design and architecture, user interface design, application prototyping, software development, focus group testing, and internet research.

While working on his Ph.D., he developed one of the very first virtual musical instruments that utilized multiple six-dimensional spatial trackers to create and record electronic music.

He developed a suite of device drivers to interface high-end spatial tracking systems from Polhemus and Ascension with computing systems from Silicon Graphics, DEC, NEXT, Apple Macintosh, and IBM PCs.

Dr. Rosenberg was the lead human factors engineer at Eyematic Corporation, designing advanced facial-tracking and facial-recognition software for the entertainment and homeland security markets.

He was the sole recipient of a \$10,000 scholarship award from I/ITSEC for advancing the field of interactive computer graphics for flight simulation.

He received a prestigious award from the Link Foundation for his work that furthered the fields of flight simulation and virtual interface design.

He created five book covers for Harcourt Brace Publishing titles featuring authors Arthur C. Clarke, Isaac Asimov, and Stephen King. His computer graphics animations appear in the movie *Beyond the Mind's Eye* produced by MIRAMAR.

Dr. Rosenberg is a member of ACM, IEEE, and the Human Factors Society and has taught Human Factors and User Interface Design at the University of Washington.

EDUCATION

1994	Ph.D. Human Factors	University of Washington	Graduating GPA: 3.83
1990	M.S. Human Factors	University of Washington	
1988	B.S. Industrial Engineering	University of Washington	

SELECTED LAW FIRMS

Agentis Law	Farney Daniels	Kasowitz	Polsinelli
Alston & Bird	Fish & Richardson	King and Spalding	Pomerantz
Baker Botts	Frier Levitt	King and Wood	Quinn Emanuel
Berg & Androphy	Gibson Dunn	Klein, O'Neil & Singh	Riezman Berger
Bryan Cave	Gordon Tilden	Knobbe Martens	Ropes and Gray
Bunsow de Mory	Gowlings	Magstone Law	Shutts and Bowen
CKR Law	Greenberg Traurig	Mayer Brown	Stern Kessler
Covington & Burling	Hagens Berman	McDermott and Will	Susman Godfrey
Davis Wright	HammerSchmidt	McKool Smith	Sutton McAughan
Dentons	Broughton	McNaul Ebel	Tonkon Torp
Dunlap Codding	Hanson Bridgett	Meyers Roman	VB Attorneys
Ebbinghouse	Hart Wagner	Morrison Foerster	Williams McCarthy
Farbstein & Blackman	Hinkle	Norton Rose Fullbright	Wolf Greenfield
Farella Braun Martel	Holland & Hart	Orrick	
Finnegan	Honigman Miller	Paul Hastings	
Fenwick & West	Hovey Williams	Perkins Coie	

SELECTED PUBLICATIONS / PRESENTATIONS

Rosenberg C., Advanced Systems Engineering and Human Factors Engineering, International Forum on Composite Material Applications for Large Commercial Aircraft, Shanghai, China, 2011.

Parks P. and Rosenberg C., Interactive Distributed Simulation Environment for Collaborative Technology Experiments and Analysis, SimTecT, Brisbane, Australia, 2008.

Crutchfield J. and Rosenberg C., Predicting Subjective Working Ratings: A Comparison and Synthesis of Operational and Theoretical Models, HCI-Aero Conference Proceedings, Seattle, WA, 2006.

Barfield, W., Cohen, M., Rosenberg, C., Visual and Auditory Localization as a Function of Azimuth and Elevation, The International Journal of Aviation Psychology, 7(2), pages 123-138, 1997.

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Reference, Virtual Eyepoint Elevation, and Geometric Field of View, International Journal of Aviation Psychology, 1994.

Rosenberg, C. and Moses, B., Future Human Interfaces to Computer Controlled Sound Systems, 95th Annual Audio Engineering Conference, New York, New York, October 1993.

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Barfield, W. and Rosenberg, C., Spatial Situational Awareness as a Function of Frame of Reference, Virtual Eyepoint Elevation, and Geometric Field of View, SID Conference, Seattle, Washington, September 1993.

Barfield, W., Rosenberg, and Cohen, M., Presence as a Function of Frame of Reference within Virtual Environments (Technical Report). Seattle, Washington, University of Washington, 1993.

Lion, D., Rosenberg, C., and Barfield, W., Overlaying Three-Dimensional Computer Graphics with Stereoscopic Live Motion Video: Applications for Virtual Environments, SID Conference, Seattle, Washington, September 1993.

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Rosenberg, C., and Barfield, W., The Effects of Scene Complexity and Object Density for Low Level Flight, Sixth International Symposium on Aviation Psychology, Columbus Ohio, September 1991.

Barfield, W., Rosenberg, C., and Levasseur, J., The Use of Icons, Earcons, and Commands on the Design of an Online Hierarchical Menu, IEEE Transactions on Professional Communication, pp. 101-108, 1991.

Rosenberg, C., and Barfield, W., Relationship Between Surface Texture and Object Density on Judgements of Velocity, Altitude, and Change of Altitude. International Symposium on Aviation Psychology, 6th, Columbus, OH. 1991.

Barfield, W., Rosenberg, C., and Kraft, C., Relationship Between Scene Complexity and Perceptual Performance for Computer Graphics Simulations, Displays: Technology and Applications, 179-185, 1990.

Barfield, W., Lim, R., and Rosenberg, C., Visual Enhancements and Geometric Field of View as Factors in the Design of Perspective Displays, Proceedings of the Human Factors Society 34th Annual Meeting, Orlando, Florida, 1470-1473, 1990.

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Barfield, W., Rosenberg, C., and Kraft, C., The Effect of Visual Cues to Realism and Perceived Impact Point During Final Approach, Proceedings of the Human Factors Society 33rd Annual Meeting, Denver Colorado, 1989.

TESTIFYING EXPERIENCE

- *Foursquare Labs v. Silver State Intellectual Technologies*, IPR2014-00159, P.T.A.B.. Filed: November 18, 2013.
- *Silver State Intellectual Technologies v. Garmin*, 2:11-cv-01578-GMN-PAL, District of Nevada. Filed: September 29, 2011
- *Select Retrieval LLC v. B & H Foto & Electronics Corp. et al*, 1:11-cv-00812-RGA, District of Delaware. Filed: September 13, 2011.
- *Wavemarket, Inc. d/b/a Location Labs v. LocatioNet Systems*, IPR2014-00199, P.T.A.B.. Filed: November 27, 2013.
- *Google v. Intellectual Ventures*, IPR2014-00787
- *Federal Trade Commission v. Amazon.com, Inc.*, C14-1038-JCC (Western District of Washington at Seattle)
- *Lindsay Corporation vs. Valmont Industries*, IPR2015-01039, P.T.A.B.. Filed: April 10, 2015.
- *In re Myford Touch Consumer Litigation*, 13-cv-3072-EMC, Northern District of California. Filed: July 2, 2013
- *BeUbiq v. Curtis Consulting Group*, 1-14-cv-270691 (Superior Court of California, County of Santa Clara)
- *Education Logistics, Inc. v. Datasopoulus, MacDonald & Lind*, DV-06-1072 (Montana Fourth Judicial Court, Missoula)
- *Global Equity Management (SA) PTY. LTD. v. Alibaba*, 6:16-cv-00098 (M.D. Florida)
- *Level One Technologies v. Penske Truck Leasing*, 4:14-cv-1305-RWS, Eastern District of Missouri. Filed: July 24, 2014.
- *Title Source, Inc. v. HouseCanary Inc.*, 2016-CI-06300 (Texas Dist. (state court), Bexar Co.)
- *Digital Cable and Satellite Products, Set-Top Boxes, Gateways, and Components Thereof*, 337-TA-1049, International Trade Commission. Filed: March 9, 2017.
- *Tatsoft v. InduSoft*, D-1-GN-14-001853, Texas District Court Travis County. Filed: June 12, 2014.
- *Courthouse News Service v. Yamasaki*, 8:17-cv-00126 AG (KESx), Central District of California. Filed: January 24, 2017
- *Princeton Digital Image Corp. v. Konami Digital Entmt Inc.*, 12-1461-LPS-CJB, District of Delaware. Filed: November 13, 2012
- *FCA US LLC Monostable Electronic Gearshift Litigation*, 16-md-02744, Eastern District of Michigan. Filed: October 5, 2016.
- *Barbaro Technologies, LLC. v. Niantic, Inc.*, 3:18-cv-02955-RS, Northern District of California. Filed: May 18, 2018
- *Blackberry Limited v. Facebook, Inc.*, 2:18-cv-01844, Central District of California. Filed: March 6, 2018.
- *Blackberry Limited v. Snap, Inc.*, 2:18-cv-02693, Central District of California. Filed: April 3, 2018.
- *Saracen LLC v. Sylvain Ross, Marginal Unit, Inc.* 4:18-cv-3714, Southern District of Texas. Filed: October 09, 2018.
- *Fidelity Information Services, LLC v. Groove Digital, Inc.* IPR2019-00050. Filed: October 17, 2018.
- *U.S. Oil & Refining Co., v. City of Tacoma, Washington Dept. of Public Utilities, ABB INC.*, 18-2-07232-3 (Superior Court of Washington for Pierce County)
- *X One, Inc., v. Uber Technologies, Inc.*, 5:16-CV-06050-LHK, Northern District of California, San Jose Division. Filed: October 16, 2019.
- *Kipu Systems, LLC. v. ZenCharts, LLC.*, 1:17-cv-24733-KMW-EGT, Southern District of Florida. Filed: December 31, 2017.
- *Maxell, LTD. v. Apple, Inc.*, 5:19-cv-0036-RWS, Eastern District of Texas. Filed: March 15, 2020.
- *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 3:15-cv-00164-J-IOMCR, Middle District of Florida. Filed: February 13, 2015
- *Certain Electronic Devices, Including Streaming Players, Televisions, Set Top Boxes, Remote Controllers, and Components Thereof*, 337-TA-1200, I.T.C. Filed: April 15, 2020.
- *Opal Labs, Inc., v. Sprinklr, Inc.*, 3:18-cv-01192-HZ, District of Oregon. Filed July 3, 2018.
- *ExactLogix, Inc. d/b/a AccuLynx.com, v. JobProgress, LLC.*, 3:18-cv-50213, Northern District of Illinois Western Division. Filed: June 19, 2018.
- *Samsung Electronics and Apple, Inc. v. Neonode Smartphone LLC*, IPR2021-00145. P.T.A.B. Filed: November 6, 2020.

- *Roku, Inc v. Universal Electronics, Inc.* IPR2021-00261. P.T.A.B. Filed: December 14, 2020.
- *Uthervse Gaming LLC v. Epic Games, 2:21-cv-799-RSM-TLF, Western District of Washington.* Filed: June 11, 2021
- *Samsung Electronics LTD. And Apple, Inc. v. Neonode Smartphone LLC, IPR2021-00144 P.T.A.B. Filed: November 6, 2020.*
- *District of Columbia v. Maplebear Inc. d/b/a Instacart, 2020-CA-003777-B, Superior Court of the District of Columbia Civil Division. Filed: August 27, 2020.*
- *Colleen Whatton v. The Goodyear Tire & Rubber Co, et al., OCN-L-1580, Superior Court of New Jersey.*
- *Masimo Corp v. Apple Inc., IPR2023-00664, P.T.A.B. Filed: March 06, 2023.*
- *Apple Inc. v. Masimo Corp., 1:22-1378-MN-JLH, District of Delaware. Filed: October 20, 2023.*
- *Design With Friends, Inc. v. Target Corp., 1:21-cv-01376-LPS, District of Delaware. Filed: September 28, 2021.*
- *BMW of North America, LLC et al. v. NorthStar Systems, LLC, IPR2023-00890, P.T.A.B. Filed: June 09, 2023.*
- *Lenovo v. AsusTek., 337-TA-1382, International Trade Commission. Filed: November 15, 2023.*
- *Multimedia Technologies v. LG Electronics, 2:22-CV-494-JRG-RSP, Eastern District of Texas. Filed: December 23, 2022.*
- *Moement v. Groomore, 22-CV-02871-WLH-JEM, Central District of California. Filed: April 29, 2022.*
- *FTC v. Amazon, 2:23-cv-0932-JHC, Western District of Washington. Filed: September 20, 2023.*
- *LiTL v. AsusTek, 1:23-cv-122-RGA, District of Delaware, Filed: February 1, 2023.*
- *Craigville Telephone v. T-Mobile, 1:19-cv-07190, Northern District of Illinois, Filed: December 10, 2020.*
- *Smith Interface Technologies v. Apple Inc., 3:23-CV-01187-TWR-BJW, Southern District of California, Filed: March 19, 2023.*

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