Craig Rosenberg, Ph.D.

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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, 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 over 145 times for both plaintiff and defense, 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, 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 in 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 21 research papers in professional journals and proceedings relating to 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 the areas of 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 the C, C++, C#, and Java languages.

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 design and specification, as well as all graphical design standards.

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

He is a co-founder of two medical technology companies, Healium and StratoScientific. Healium brought patient's 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 running 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 market that included a wide set of features such as Microsoft Outlook integration, photo and video capability, web browsing, internet radio, file browsing, and file sharing.

He designed and developed interactive multimedia games as well as 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 made by Polhemus and Ascension with computing systems made by Silicon Graphics, DEC, NEXT, Apple Macintosh, and IBM PCs.

Dr. Rosenberg was the lead human factors engineer for 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 furthering the field of flight simulation and virtual interface design.

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

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.

Barfield, W., Rosenberg, C., and Furness, T.A., Situation Awareness as a Function of Frame of Reference, Computer-Graphics Eyepoint Elevation, and Geometric Field of View, International Journal of Aviation Psychology, Vol 5, pp. 233-256, 1995.

Rosenberg, C., Barfield W., and Lotens, W., Virtual Environments and Advanced Interface Design, Augmented Reality Displays, Oxford University Press, pp. 542 – 575, 1995.

Barfield, W., and Rosenberg, C., Judgments of Azimuth and Elevation as a Function of Monoscopic and Binocular Depth Cues Using a Perspective Display, Human Factors, Volume 37, Number 1, 1995.

Rosenberg, C. and Barfield, W., Estimation of Spatial Distortion as a Function of Geometric Parameters of Perspective, IEEE Transactions on Systems, Man and Cybernetics, Volume 25, Issue 9, September 1995.

Barfield, W. and Rosenberg, C., Perspective versus Stereoscopic Displays for Spatial Judgments, accepted for publication, Human Factors, 1994.

Barfield, W. and Rosenberg, C., and Furness, T., Situational Awareness as a Function of Frame of 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.

Barfield, W. and Rosenberg, C., Comparison of Stereoscopic and Perspective Display Formats for Spatial Tasks, SID Conference, Seattle, Washington, September 1993.

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 or Frame of Reference within Virtual Environments (Technical Report). Seattle, Washington, University of Washington, Sensory Engineering Lab, 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.

Barfield, W., and Rosenberg, C., The Effect of Geometric Field of View and Tunnel Design for Perspective Flight-Path Displays, Transactions of the Society of Automotive Engineers, Seattle, Washington, July 1992.

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 Effect of Icons, Earcons, and Commands on the Design of a Hierarchical On-line Menu, IEEE Transactions on Professional Communication, 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.

Barfield, W., and Rosenberg, C., The Effects of Scene Complexity on Judgments of Aimpoint and Altitude During Final Approach, Proceedings of the Human Factors Society 34th Annual Meeting, Orlando, Florida, 61-65, 1990.

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-lOMCR, 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.
- ***Utherverse 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.*

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