Jean Renard Ward

Rueters-Ward Services 33 Forest Street Watertown, MA 02472 Cell: 781-267-0156 GoogleVoice: 617-600-4095 jrward@alum.mit.edu jrward@ruetersward.com (*) http://www.ruetersward.com (*)



MIT-educated technical and software consultant. Highly experienced expert witness in patent and technology litigations. Areas of expertise include touchscreen and tablet hardware, capacitive touch and proximity sensors, styli/electronic pens, haptics; gestures, user interfaces (UIs), touchscreen graphics, and accessibility user interfaces (blind/visually-impaired); digital rights management (DRM), digital encryption (PKI), and malware detection; programming/coding, source-code analysis, and firmware. Public speaking experience for non-technical audiences. Author of technical reference bibliography cited by USPTO, academic dissertations and technical publications by others. Clients include Google, Samsung, Ericsson, Lenovo, Motorola, Nokia, and Lucent Technologies. Granted multiple US patents, additional published patent applications.

Professional Experience

Rueters-Ward Services, Arlington, Massachusetts

2008-present

Consulting/development for multiple clients, including:

- Laboratory information processing for biomedical drug-discovery company.
- Digital audio HW/SW Agile verification automation for massive VOIP technology.
- Consulting/development for TV-band datacasting architecture with authentication/DRM.
- Technical consulting, review, development for web-based collaborative work systems.
- Prior-art research and source-code analysis in patent litigations (confidential).
- Technical assistance to Boston-area attorney in solo practice (patent prosecution only).

Litigation Support/Expert Witnessing

- Patent analysis / prior art research.
- Source-code analysis / reverse engineering.
- Expert report writing.
- Testimony at deposition and trial.
- Cases involve major high-tech entities such as Google and Samsung
- Federal Court, USPTO, State Court (California), and internationally (Australia, Brazil).

(*) (Please check spelling carefully when using this email address.)

CV, Jean Renard Ward: December 13, 2020

Page |1

Professional Experience (continued)

Bluesocket, Inc., Burlington, Massachusetts

(Staff) Software development and engineering process (with QA Director and VP Eng.) for a distributed wireless network controller product with integrated security, verification of SSL/TLS and VPN features in multiple hardware devices and SIP mobile phones. Agile/Jira.

Cylant Security, Burlington, Massachusetts

(Staff: Principal Engineer) Computer security technology: Multi-platform product for malware/virus detection, including techniques of behavioral analysis. Two patent filings on novel techniques (violation of invariant conditions) for detection of rootkits and malware.

Digimarc, Burlington, Massachusetts

(Consultant) Application of PKI technology in fabrication and production of secure identity documents and manufactured items. One patent filing regarding PKI signatures to ensure authenticity and track unauthorized issuance of security documents such as passports.

Independent Consultant (Multiple Projects)

(Consultant) Web development in high-availability/high-performance applications, mobile payments using modified mobile phones, and international certification of a life-critical annunciation system. Prior-art research for two clients: pen-computing hardware and handwriting recognition.

CertCo Incorporated, Cambridge, Massachusetts

(Staff: PKI Systems Architect) Development of distributed web applications involving proprietary PKI in e-commerce. Three patent filings regarding PK infrastructure for distributed electronic signing.

Siemens-Nixdorf USA, LCP Business Unit, Burlington, Massachusetts

(Consultant) Design and development of cryptographic PKI/security technology for electronic DRM licensing of documents and materials distributed without restriction over the public Internet.

e-parcel.com, Newton, Massachusetts Division of Mitsubishi Electronics

(Staff: Development Group Leader) Secure, encrypted document and software delivery systems for secure automatic delivery over the public Internet. Instituted engineering tracking and QA process.

FAX International, Burlington, Massachusetts

(Consultant) Automated Email-to-FAX gateway, routing of fax traffic over private TCP/IP network.

DEC/Digital VXT Division, Marlboro, Massachusetts

(Consultant) WindowsNT-based graphics/applications terminal product using ALPHA technology.

DMR Group, Waltham, Massachusetts

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(Consultant) Proprietary application scripting language, associated compilers, debuggers, and tools.

Phoenix Technologies Ltd., PAGE Division Cambridge, Massachusetts 1993-1994

(Consultant) Firmware for a multiple-language, multiple-resolution network printer (PostScript/PCL).

Termiflex Corporation, Merrimac, New Hampshire

(Consultant) Compiler, linker, interpreter, and related tools for an object-based programming language for applications in hand-held touchpad industrial controller terminals.

CV, Jean Renard Ward: December 13, 2020

Page | 2

2007-2008

2003-2004

2002-2003

1999-2002

1998-1999

1996-1998

1995-1996

1994-1995

1994

1993

Professional Experience (continued)

Slate Corporation, Newton, Massachusetts

Development of tablet and pen computing applications products for the Microsoft PenWindows and GO/PenPoint pen-computing operating systems.

Company representative and technical co-chair of an industry standardization effort ("JOT") for electronic ink data format and compression applications.

Wang Laboratories, Lowell, Massachusetts

(Staff: Senior Software Architect) Lead developer for touchscreen hardware and controller/driver software to provide enhanced functionality to a portable computer as part of the "Freestyle" tablet-based computer applications family. Company technical representative to early Pen Windows discussions with Microsoft concerning mobile tablet computers. Hardware design of an electrostatic tablet digitizer/touchscreen for a mobile tablet computer. Patents on pen-based UI involving virtual devices.

Teledyne/TAC, Woburn, Massachusetts

(Staff: Dir. of S/W Engineering) Computer-controlled industrial automation for IC wafer testing.

Pencept Inc., Waltham, Massachusetts (Later: Numonics Inc.) 1979-1987 (Staff: Lead Engineer) Group leader for Pencept's handwriting/gesture recognition and pen-computing digitizer tablets and hardware controllers through three generations of products. Patents related to pencomputing UI (user interface) and pen-computing digitizers.

Dynatron Corporation, Waltham, Massachusetts

(Staff: Senior Engineer/Analyst) Specialized implementation tools for real-time digital audio signal processing and testing. Early work as consultant for Penverter Partners (predecessor to Pencept).

Data General Corp., Westboro, Massachusetts

(Staff: Senior Systems Programmer) Compiler development.

1974-1977

CV, Jean Renard Ward: December 13, 2020

DOCKE

Page 3

1991-1993

1987-1989

1989-1991

1977-1979

Expert Witness/Litigation Support/Fact Witness

- Declarations in support of Samsung in matters related to *Certain Touch-Controlled Mobile* Devices, Computers, and Components Thereof, Inv. No. 337-TA-1162; and Neodron Ltd v. Samsung Electronics Co., Ltd. et al, No. 6-19-cv-00323 (W.D. Tex.) (Ongoing: Declaration regarding claims construction September 2019) Law Firm: O'Melveny & Myers LLP, Los Angeles, http://omm.com
- Declarations in support of petitioner Elo Touch Solutions Inc. for *Inter Partes* Review of U.S. Patents 8,179,381, 8,274,494 8,704,799, and 9,823,786 concerning patterned materials for touchscreens, IPR2019-00254, IPR2019-0256, IPR2019-00278 and IPR2018-00261. Outcome: Settled February 2019 before depositions, after petitions submitted (November 2018) Law Firm: Jones-Day, New York. http://JonesDay.com
- 3. Declaration in support of validity of Brazil Patent PI 9814565-7 (P8877), corresponding to US Patent RE43931, concerning touch user interfaces in hand-held radiotelephones. 13th Federal District Court of Rio de Janeiro, case no. 0025037-30.2018.4.02.5101. TCT Mobile Telefones Ltda. (Plaintiff), Telefonaktiebolaget LM Ericsson (Defendant), Brazilian Patent and Trademark Office (*Pro forma* Co-Defendant) (Declaration submitted October 2018) Law Firm: Licks Attorneys, Rio de Janeiro, Brazil. http://Lickslegal.com
- 4. (Projects as consulting expert)
 - Investigation/analysis for patents regarding sales systems with pen-based computers (2020).
 - Source-code analysis (Web site and Smartphone apps) for contract on-boarding (2020).
 - Remote O/S access (2020).

Earlier:

- Display hardware technology.
- Power management in portable devices.
- Touchscreen materials and fabrication.
- 5. Declarations in support of petitioner Samsung for *Inter Partes* Review of U.S. Patents 6,429,846, 7,982,720 and 8,031,181 concerning haptics in touchscreen user interfaces. (Petitions submitted August 2018, Settlement 2019) Law Firm: Fish and Richardson, Minneapolis, Minnesota, http://fr.com
- 6. Declarations and depositions in support of petitioner Samsung for *Inter Partes* Review of U.S. Patents 8,717,303, 8,743,076, 8,866,785 and 8,878,810 (related to 6,610,917) concerning user interfaces and hardware for pressure-sensing capacitive touchscreens. (Depositions October 2016, February 2017)
 Outcome: PTAB found all contested claims unpatentable. Law Firm: Ropes and Gray, East Palo Alto, CA. http://Ropesgray.com
- Declaration and USPTO interview in support of patent owner Wimo Labs for Re-examination of U.S. Patents 9,092,077 and 8,847,930 concerning styli for capacitive touchscreens. (Declaration, PTAB interview September 2016) Outcome: PTAB held amended claims valid. Law Firm: Neal Gerber Eisenberg, Chicago, Illinois. http://ngelaw.com
- Declarations and deposition in support of patent owner Ericsson for *Inter Partes* Review of U.S. Pat. RE43931 (6,131,047) concerning touchscreen user interfaces for hand-held radiotelephones (Declaration and deposition May/June 2016). Outcome: PTAB found contested claims unpatentable Law Firm: Oblon, McClelland, Maier and Neustadt, Alexandria, Virginia. http://Oblon.com

CV, Jean Renard Ward: December 13, 2020

Page |4

9. Expert witness for defendant Google in *ContentGuard Holdings, Inc. v. Google Inc.* (with co-defendant Samsung), Case No 2:14CV0061, (Eastern District of Texas, Marshall Division), concerning U.S. Patent 8,393,007 and seven related patents on multimedia Digital Rights Management (DRM) and Secure Systems for mobile devices. (Multiple reports. Deposition June 2015, trial September 2015.) Outcome: Jury returned verdict of no infringement of any of the asserted claims. Law Firm: Kaye Scholer, New York, New York. http://kayescholer.com

 Expert witness for plaintiff GO Computer in *GO Computer, Inc. v. Microsoft,* CGC-05-442684 in Superior Court, State of California/San Francisco concerning business practices in California under the Cartwright Act. (Report and Deposition August 2015.) Outcome: Settled September 2015. Law Firm: Kellog, Huber, Hansen, Tood, Evans & Figel, Washington DC. http://Khhte.com

- Expert witness for defendant Lenovo in *MAZ Encryption Technologies LLC v Lenovo Inc.*, Case No. 13-303-LPS (District of Delaware), U.S. Patent 8,359,476 concerning encryption and decryption in conjunction with smartcards. (Report December 2014, Deposition April 2015.) Outcome: Settled before trial. Law Firm: Kenyon and Kenyon, Washington, DC. http://Kenyon.com
- 12. (Non-expert deposition as subpoenaed fact witness in *Flatworld v. Samsung Electronics Co. LTD. et al*, Case No 12-804-LPS, District of Delaware, April 2015.)
- 13. Declaration/report in support of petitioner Google, Inc. for *Inter Partes Review* of U.S. Patent 6,121,960, concerning rendering of transparency (e.g. alpha blending, screen door transparency, composite video) in graphics images and touch screen user-interface methods. (May 2014. Depositions February and May 2015, and in December 2018 after court order.) Law Firm: Kilpatrick Townsend and Stockton, Atlanta, Georgia. http://Kilpatricktownsend.com

14. Expert witness for defendant Samsung in Apple, Inc. v Samsung Electronics Co. Limited, Proceeding No. NSD 1243 of 2011, Federal Court of Australia, concerning Australian counterpart to US patent 5,825,352 regarding multi-touch hardware for mobile devices. (Two reports, trial testimony June 2013 in Sydney, Australia.) Outcome: Litigation agreement by parties.
Law Firm: Nigel Bowen Chambers, Sydney Australia http://nigelbowen.com.au Ashurst Australia, Melbourne Australia http://ashurst.com

15. (Projects as consulting expert)

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- Transparent graphical displays.
- Rotation of window views in touchscreen devices.
- Gestures on a virtual keyboard.
- Layered display of information.
- 16. Expert witness for defendant Motorola in *Certain Mobile Devices Incorporating Haptics*, case number 337-2875, in the U.S. International Trade Commission, concerning touch haptics, US Patent 7,148,857 and related patents. Outcome: settled prior to reports due 2012. Law Firm: Steptoe and Johnson, Washington, DC http://steptoe.com

CV, Jean Renard Ward: December 13, 2020

Page | 5

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