

Ray Chiang

Senior Software Consultant

323-545-0530

ray@quandarypeak.com

Quandary Peak Research

22320 Foothill Blvd, Suite 460

Hayward, CA 94541

quandarypeak.com/ray

I am a software systems expert and technologist with more than 15 years of experience in system engineering, video technologies, content distribution, digital media, and embedded systems. I have been involved in the development and management of consumer electronics industry standards such as HDMI and HDR10+ at Samsung, and Panasonic.

At Quandary Peak Research, I serve as a consultant and source-code analyst in litigations, including patent and copyright infringement, and breach-of-contract matters.

Education

Master of Science in Business Administration, Technology Management

University of Illinois at Urbana-Champaign, IL | 2007

Bachelor of Science in Computer & Information Science

National Chiao-Tung University, Hsinchu, Taiwan | 2000

Languages

- English
- Chinese (Mandarin)
- minor in Japanese
- Korean

Employment

Quandary Peak Research

Senior Software Consultant | Irvine, CA | Nov 2020–Present

- Serve as a consultant and source-code analyst in litigations, including patent and copyright infringement, breach-of-contract matters. Skilled in source code review and reverse-engineering.
- Support IT management and company software development.

RayStudio Inc

Technical Consultant, Self-Employed | Irvine, CA | Jan 2019–Nov 2020

- Engineering Project Management
- Software Development/Analysis Consultant
- Live streaming A/V deployment

Samsung Research America

System Architect / Technical Consultant | Irvine, CA | Jan 2011–Dec 2018

- Led media player research & compliance program at Samsung. Based on embedded system development, reverse engineering, software decompiling and black-box testing. Partnered with major studios, and content production facilities to overcome interoperable problems in the market for all media player product lines of more than 50+ product models.
- Contributed to and served in digital media, video, and display technologies industry-standard bodies, served as a technical liaison, officer, and board of directors, in HDR10+, HDMI forum, DECE, SCSA, Blu-ray Disc Association (BDA).
- Involved in development and launch of the consumer electronics standard HDR10+ at Samsung. Responsible for technical design and verification of display color technologies; WCG and HDR system, Picture Quality, Color grading, and display calibration technologies.

Panasonic of North America

Software Java Engineer / Blu-ray Disc Authoring | Los Angeles, CA | Sept 2007–Dec 2010

- Authored 50+ BD titles (SKUs) including hit titles such as “*Avatar* 3D Blu-ray Disc”.
- Developed Blu-ray Disc Java (BD-J) multimedia/UI application, with Video/Audio assets processing.
- Improved internal production process; reduced the total production time and human resource for projects by 30-50%. Contributed in company production template/Utilities that applied to 100+ titles.

Aplix Corporation

Development Team Manager, Research and Development | Taipei, Taiwan | Mar 2003–Apr 2006

- Led development team integrated Java Virtual Machine (JVM) on embedded systems (RTOS) for major cell phone manufacturers in Taiwan. Focused on Java VM porting (JNI development), enabled and supported their Java VM solution passing the Sun Micro Java certification (TCK).

Software Dispute Due Diligence

- **Pre-litigation Patent Infringement Assessment** | Dec 2023–Present

Technology: mobile gaming, geolocation, user and device verification, jailbreak detection, proxy detection, Bluetooth beacon, ad delivery, biometric authentication.

Litigation Consulting

- **Albert Daniel Tomassone, Vincent Demasi, et al. v. Wellspan Health** | Aug 2025–Present
Jurisdiction: PA Civil Court of Common Pleas, Lancaster County
Case Number: CI-24-06194
Counsel: Consovoy McCarthy PLLC
Nature of Suit: Class Action
- **Confidential Technology Litigation** | Feb 2025–Present
Jurisdiction: US District Court, Eastern District of Texas
Counsel: Dorsey & Whitney LLP
Nature of Suit: Patent
- **Pump Labs, Inc v. Jiacheng Gui, et al.** | Dec 2024–Present
Jurisdiction: US District Court, Central District of California
Case Number: 8:24-cv-01910
Counsel: Law Office of Leeor Neta
Nature of Suit: Copyright, Trade Secret, Breach-of-Contract
- **GG Insurance Services, Inc v. Myles Johnson, Insurance Group, LLC** | Aug 2024–Present
Jurisdiction: US District Court, District Of Arizona
Case Number: 2:23-cv-01964
Counsel: Koley Jesson
Nature of Suit: Copyright, Trade Secret
- **Richard Chance v. Totem Technologies, Inc** | June 2024–Nov 2024
Jurisdiction: State of OK, District Court of Tulsa County
Case Number: CJ-2023-02533
Counsel: Actuate Law, LLC
Nature of Suit: Trade Secret
- **Electronic Devices Including Smartphones, Computers, Tablet Computers, and Components Thereof**
Dec 2023–Present
Jurisdiction: International Trade Commission (ITC)
Case Number: 337-TA-1373
Counsel: Alston & Bird LLP
Nature of Suit: Patent
- **Touchstream Technologies, Inc v. Comcast Cable Communications, LLC** | Nov 2023–Mar 2024
Jurisdiction: Eastern District of Texas
Case Number: 23-cv-00062
Counsel: Shook, Hardy & Bacon LLP
Nature of Suit: Patent
- **MaddenCo, Inc. v. HG AutoTech LLC** | Aug 2023–Present
Jurisdiction: S.D. Indiana
Case Number: 3:22-cv-00173-RLY-MPB
Counsel: Delk McNally LLP | Breazeale, Sachse & Wilson, LLP
Nature of Suit: Copyright; Third-party Neutral
- **Dmarcian, Inc. v. DMARC Advisor BV** | Aug 2023–Present
Jurisdiction: U.S. District Court for the Western District of North Carolina, Asheville
Case Number: 1:21-cv-00067-MR
Counsel: Womble Bond Dickinson (US) LLP
Nature of Suit: Copyright

- **Nextpulse, LLC. v. Brunswick Corp.** | May 2023–Oct 2023
 Jurisdiction: US District Court for the Northern District of Georgia
 Case Number: CGC-18-571065
 Counsel: Edelsberg Law, P.A.
 Nature of Suit: Class Action
- **Compass Canteen Class Action** | May 2023–Present
 Jurisdiction: US District Court, Eastern Missouri
 Case Number: 4:18-cv-01962-SEP
 Counsel: Arias Sanguinetti Wang & Torrijos, LLP
- **Jennifer Waller v. Tampa Bay Times (Times Publishing Company)** | Apr 2023–May 2023
 Jurisdiction: US District Court for the Middle District of Florida
 Case Number: 8:23-cv-00119
 Counsel: Edelsberg Law, P.A.
 Nature of Suit: Class Action
- **Melanie Barber v. Eisenhower Medical Center, Inc.** | Apr 2023–May 2023
 Jurisdiction: California Central District Court
 Case Number: 5:23-cv-00250
 Counsel: Edelsberg Law, P.A.
 Nature of Suit: Class Action, Breach of Contract
- **Emma Mendoza v. WP Company LLC dba The Washington Post** | Apr 2023–May 2023
 Jurisdiction: U.S. District of Columbia Superior Court
 Case Number: 2023CAB001101
 Counsel: Edelsberg Law, P.A.
 Nature of Suit: Class Action
- **K+S Potash Canada General Partnership v. Veolia Water Technologies Inc** | Mar 2023–Present
 Jurisdiction: Court Of Queen's Bench For Saskatchewan
 Case Number: QB No. 817 (filed 2018)
 Nature of Suit: Breach of Contract
 Counsel: Stikeman Elliott LLP
 Technology: Plant Design Management Systems (PDMS), Clash Detection, Database synchronization
 Role: Source Code and Database Reviewer
- **Enigmatus, s.r.o. v. Playtika Ltd.** | 2022
 Jurisdiction: Federal Court of Ottawa
 Court No. T-2085-16 (filed December 2, 2016)
 Nature of Suit: Trademark
 Counsel: Dipchand LLP
 Technology: Mobile application development, gaming, Web Application Protocol, geolocation
- **Content Engines, LLC v. Rumble USA, Inc., & Rumble Inc.** | 2022
 Jurisdiction: Dist. Florida
 Case No. 8:22-cv-01949 (filed August 24, 2022)
 Nature of Suit: Patent Infringement
 Counsel: Burke, Williams & Sorensen, LLP.
 Technology: Content Delivery Network (CDN), video streaming, RAID storage

- **Broadband iTV, Inc. v. Comcast Corporation; Comcast Cable Communications, LLC; NBCUniversal Media, LLC** | Apr 2022–Sept 2022
Jurisdiction: International Trade Commission
Case Number: 337-TA-1315
Counsel: Kramer Day Alberti Lim Tonkovich & Belloli
Nature of Suit: Patent
- **Broadband iTV, Inc. v. Charter Communications, Inc; Charter Communications Holding Company, LLC** | Apr 2022–Sept 2022
Jurisdiction: International Trade Commission
Case Number: 337-TA-1315
Counsel: Kramer Day Alberti Lim Tonkovich & Belloli
Nature of Suit: Patent
- **Broadband iTV, Inc. v. Spectrum Management Holding Company, LLC** | Apr 2022–Sept 2022
Jurisdiction: International Trade Commission
Case Number: 337-TA-1315
Counsel: Kramer Day Alberti Lim Tonkovich & Belloli
Nature of Suit: Patent
- **Broadband iTV, Inc. v. Altice USA, Inc; CSC Holdings, LLC; Cablevision Systems Corp.** | Apr 2022–Sept 2022
Jurisdiction: International Trade Commission
Case Number: 337-TA-1315
Counsel: Kramer Day Alberti Lim Tonkovich & Belloli
Nature of Suit: Patent
- **Taasera Licensing, LLC vs Trend Micro, Check Point Software, Palo Alto Networks** | Jan 2023–Dec 2023
Jurisdiction: US District Court Eastern District of Texas Marshall Division
Case Number: 2:22-cv-00062-JRG-RSP
Counsel: Fabricant LLP
Nature of Suit: Patent
- **LKQ Corporation v. Overall Parts Solutions** | Nov 2022–Nov 2024
Case Number: 2022-0036
Jurisdiction: Court of Chancery of the state of Delaware
Counsel: Jones Day
Nature of Suit: Breach of Contract
- **Laszlo Pusztai et al v. Apple Inc** | Nov 2022–Present
Case Number: 3:21-cv-7995
Jurisdiction: US District Court for the Northern District of California
Counsel: Davis Wright Tremaine LLP
Nature of Suit: Copyright infringement
- **Cryptocurrency Pre-Litigation Investigation** | 2022
Jurisdiction: Federal (DOJ)
Nature of Suit: Criminal fraud and theft
Retained by: Defendant
Counsel: Todd & Weld LLP
Technology: Blockchain, smart contracts (TEAL assembly)

- **Wave Plastic Surgery; Peter G. Lee v. Venus Cosmetic Surgery, Jiing Tsong Wang** | Dec 2021–May 2023
 Jurisdiction: California Superior Court, County of Los Angeles
 Case Number: 19STCV09656
 Counsel: Commerce Law Group
 Nature of Suit: Social media, defamation
- **Espíritu Santo Holdings, LP & L1bre Holding, LLC v. United Mexican States** | 2021
 Jurisdiction: ICSID
 Case No. ARB/20/13 - 20417 (filed September 17, 2021)
 Nature of Suit: Investor-State Arbitration
 Counsel: Pillsbury Winthrop Shaw Pittman LLP
 Technology: Mobile phone applications, ride hailing services
- **Certain Vehicle Controls Systems, Vehicles Containing the Same, and Components Thereof** | 2021
 Jurisdiction: International Trade Commission (ITC)
 Case Number: 337-TA-1235 (filed November 19, 2020)
Retained by: Volkswagen America
 Counsel: Sterne Kessler Goldstein & Fox
 Nature of Suit: Patent Infringement
 Technology: CAN bus communication of terrain selection data to vehicle suspension, breaking and transmission control subsystems (C++)
- **Autoscan GMBH, KHS Int’l. HLD. LTD v. Manitoba LTD D.B.A. DCC Hail** | Mar 2020
 Case Number: T-359-20
 Jurisdiction: Federal Court of Montréal, Quebec
 Counsel: Gowling WLG (Canada) LLP
 Nature of Suit: Copyright infringement
- **Graphite Software Corporation v. Beijing Xiaomi Mobile Software Co., Ltd**
 Case Number: HKIAC/A20096
 Counsel: Borden Ladner Gervais LLP
- **Express Mobile, Inc v. Facebook, Inc** | Sept 2020
 Case Number: 6:20-cv-00803
 Jurisdiction: Western District Of Texas
 Counsel: Feinberg Day Kramer Alberti Lim Tonkovich & Belloli LLP
 Nature of Suit: Patent infringement
- **HLFIP Holdings, Inc D.B.A. Smart Communications IP Holdings v. York County, Pennsylvania; York County Prison** | Feb 2020
 Case Number: 1:20-cv-00186-CCC
 Jurisdiction: Middle district of Pennsylvania
 Counsel: Baker & Hostetler LLP
 Nature of Suit: Patent infringement
- **Artec Europe S.A.R.L. v. Shenzhen Creality 3D Technology Co., Ltd et al** | Mar 2022
 Case Number: 1:2022cv01676
 Jurisdiction: Eastern District of New York
 Counsel: Munck Wilson Mandala
 Nature of Suit: Patent infringement

- **Jaguar Land Rover v. Volkswagen Group of America, Inc** | Dec 2020
Case Number: 337-TA-1235
Jurisdiction: United States International Trade Commission Washington, D.C
Counsel: Sterne Kessler Goldstein & Fox
Nature of Suit: Patent infringement
- **Palmetto Solar, LLC v. Dvinci Energy, Inc, and Walid Halty** | Oct 2020
Case Number: 2020-0920-JTL
Jurisdiction: Court of Chancery of the State of Delaware
Counsel: Ray & Counsel, P.C.
Nature of Suit: Breach of contract
- **Zeta Global Corp. v. Maropost Marketing Cloud, Inc** | May 2020
Case Number: 1:20-cv-03951
Jurisdiction: Southern District of New York
Counsel: Newman Du Wors LLP
Nature of Suit: Patent infringement
- **FinancialApps, LLC v. Envestnet, Inc, and Yodlee, Inc** | July 2019
Case Number: 19-cv-01337
Jurisdiction: United States District Court for the District of Delaware
Counsel: Kasowitz Benson Torres LLP
Nature of Suit: Breach of contract

Intellectual Property Consulting

- **Confidential Class Action Analysis** | May 2025–Present
Nature of Consultation: Class Action
Technology: User privacy.
- **Sullivan & Cromwell LLP** | Feb 2025–Present
Nature of Consultation: Patent Analysis
Technology: Audio codec.
- **Confidential Technology Company** | Dec 2024–Present
Nature of Consultation: Patent Analysis
Technology: video codecs, streaming technology.
- **Pre-litigation Patent Infringement Assessment** | Dec 2023–Present
Technology: mobile gaming, geolocation, user and device verification, jailbreak detection, proxy detection, Bluetooth beacon, ad delivery, biometric authentication.

Areas of Expertise

- **Programming**
C/C++, C#, Java, JavaScript, Go lang, Perl, Python, PHP, SQL, Ruby
- **Network Protocol**
TCP/IP, UDP, HTTP, HTTPS, Serial Communication (RS-232/Bluetooth)
- **Java Technologies**
J2SE, J2ME, BD-J, JVM, JVM certification (TCK), Java Native Interface (JNI), Swing/AWT, Tomcat, Spring Boot

- **Internet and Web**

REST, HTML5, CSS, JavaScript (full stack), jQuery, React.js, NodeJ.js, Next.js, Python, JSON, AJAX, PHP, Amazon Web Services (AWS), WordPress, Jekyll, Lightning

- **Video/Industry Standards**

MPEG2-TS, MP4, MPEG-DASH, HTTP Live Streaming (HLS), HDR10, HDR10+, MP4, H.264, H.265 (HEVC), HDMI, HDR Metadata (SMPTE-2084/2086/2094-40), HDMI, Blu-ray Disc Standards (BDA), Advanced Television Systems Committee (ATSC), CableLabs, Society of Cable Telecommunications (SCTE)

- **Digital Media**

Video Encoding/Decoding, Media Transcoding, Content Protection Encryption/Decryption, Content Delivery, Content Delivery Network (CDN), OpenGL, OpenCV, FFmpeg, Blu-ray Disc/DVD Authoring, UHD, Display Technologies, High Dynamic Range (HDR), HDR Tone Mapping, Picture Quality, Display Calibration, Color grading, Live Streaming

- **Database**

MS SQL, PostgreSQL, Oracle DB

- **Software Development**

Git, Github, JIRA, Apache Subversion, CVS, Ant build, CMake

- **Operating Systems**

Linux, Unix, Mac OS X, iOS, Windows, Android, WinCE

- **Other Software**

Adobe Photoshop, Final Cut Pro, ColorFront Transcoder, Davinci Resolve, Calman, OBS

- **Litigation Support**

Intellectual property and patent infringement, breach of contract, trade secret, ITC, software design/source code audit and review.