

# Ray Chiang

Senior Software Consultant

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**Quandary Peak Research**

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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

- **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 Consulting Company** | 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.
- **Confidential Technology Company** | Nov 2024–Dec 2024  
Nature of Consultation: Patent Analysis  
Technology: 5G, wireless, Bluetooth, and operating system.

## 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 Transkoder, Davinci Resolve, Calman, OBS

- **Litigation Support**

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