

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.

Employment

Senior Software Consultant

Quandary Peak Research | 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.

Technical Consultant, Self-Employed

RayStudio Inc | Irvine, CA | Jan 2019–Nov 2020

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

System Architect / Technical Consultant

Samsung Research America | 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.

Software Java Engineer / Blu-ray Disc Authoring

Panasonic of North America | 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.

Development Team Manager, Research and Development

Aplix Corporation | 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).

Litigation Consulting

• **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–Present

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–Present

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** | Jan 2022
Case Number: 2022-0036
Jurisdiction: Court of Chancery of the state of Delaware
Counsel: Jones Day
Nature of Suit: Breach of Contract
- **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)
- **Pusztai et al v. Apple Inc** | Oct 2021
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
- **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

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

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

Languages

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