STACY A. FRIEDMAN

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SUMMARY

Creative technology product consultant with over 25 years' experience in product design, development, and IP strategy across several industry sectors, including enterprise software, mobile and online gaming, and casino gambling. Harvard degree in computer science, *magna cum laude*. Key product design resource for several small technology companies leading to over $500M in total M&A activity.

Named inventor on over 30 U.S. Patents. Managing an IP portfolio of several dozen assets including patents and trademarks. *Pro se* and counsel-assisted patent prosecution including initial specification/claims drafting, office action responses, and appeal brief drafting. Successfully negotiated several IP transactions.

Subject matter expert consulting and expert witness testimony in over 65 disputes or litigations in US and internationally (Canada, UK, Australia, Costa Rica).   Matters include patent infringement, trade secret misappropriation, USPTO proceedings (IPR, CBM, PGR, *ex parte* reexamination), breach of contract, criminal proceedings, and pre-litigation analysis. Over 100 written expert reports or declarations. More than 40 appearances at deposition, hearing or trial, including sworn appearances in U.S. district courts, U.S. state courts, and patent courts in UK and Canada.

Expert analysis tasks included: patent acquisition advice, software source code analysis, review of specialty hardware (regulated gaming equipment), game mathematics analysis, technical systems analysis, prior art search/analysis, regulatory/legal compliance analysis, patent claim construction, patent validity and infringement, trade secret analysis, trade secret reverse engineering, gaming operations data, analysis of other experts' opinions.

EXPERT CONSULTANT EXPERIENCE

IPRs, networked gaming technology
Client: counsel for petitioner. Analysis: validity. 2025-ongoing.

Patent infringement and trade secret misappropriation, gaming technology
Client: confidential. 2024-ongoing.

Statutory question (arbitration), social casino products
Client: counsel for defendant. Analysis: state gaming statutes, product testing. Confidential settlement. 2024-2025.

Statutory question, gaming machines
Client: confidential. Analysis: state gaming statutes, gaming machine testing. 2024-ongoing.

Statutory question (arbitration), social casino products
Client: counsel for defendant. Analysis: Kentucky gaming statutes, product testing. Testimony: deposition. Favorable settlement shortly after my deposition. 2024.

Patent infringement, electronic gaming systems
Client: counsel for defendant. Analysis: claim construction, infringement, validity. 2024-ongoing.

Consumer protection action, online gaming products
Client: counsel for defendant. Analysis: parties' documentation, product testing. 2024-ongoing.

Patent infringement, gaming products
Client: counsel for defendant. Analysis: claim construction, infringement, validity. 2024-ongoing.

Consumer protection action, networked computing technology
Client: counsel for defendant. Analysis: parties' documentation. 2024-ongoing

Internet Sports Int'l v Amelco, contract and trade secret dispute, retail sports betting terminals
Client: Fennemore Craig for defendant. Analysis: parties' documentation and products, hardware and source code. Testimony: deposition. 2024-ongoing.

Pre-litigation patent infringement analysis, online gaming systems and methods
Client: counsel for potential defendant. Analysis: preliminary infringement analysis. Litigation averted. 2023-2024.

Breach of contract, gaming products
Client: counsel for defendant. Analysis: parties' documentation and products. 2023-ongoing.

Intuit v Samesurf, IPRs, synchronized web browsing technology
Client: McKool Smith for patent owner. Analysis: claim construction, validity. Testimony: declarations, deposition. Two patents invalidated, one not shown unpatentable. 2023-2024.

Samesurf v Intuit, patent infringement, synchronized web browsing technology
Client: McKool Smith for plaintiff. Analyses: claim construction, infringement, source code, product testing. Testimony: declaration. 2023-ongoing.

Blackhawk Network v SL Card, breach of contract, lottery products
Client: Baker Hostetler for plaintiff. Analysis: parties' documentation and products. Testimony: deposition, trial. 2023-ongoing.

TNT Amusements v Torch Electronics, unfair competition and civil RICO, gaming machines
Client: Bryan Cave for plaintiff. Analysis: hardware and source code, gaming machine functionality in view of state law. Testimony: depositions, hearing. 2023-ongoing.

Fremin et al. v Boyd Racing et al., constitutional question, historical horse racing (HHR)
Client: Breazeale, Sachse & Wilson for plaintiffs. Analysis: HHR machine functionality in view of Louisiana state constitution and other state laws. Testimony: affidavit. Summary judgment that law approving HHR without a vote was unconstitutional. 2023-2024.

Patent infringement, gaming technology
Client: counsel for defendant. Analyses: infringement, source code. Patent claims invalidated. 2022-2023.

Patent infringement, wagering systems and methods
Client: counsel for defendant. Analyses: claim construction, validity. Confidential settlement. 2022-2023.

Patent infringement, casino management systems
Client: counsel for defendant. Dismissed. 2022-2023.

Acres 4.0 v IGT, patent infringement, casino management systems
Client: Baker Hostetler for defendant. Analyses: infringement, practicing product, source code. Testimony: declaration. Confidential settlement. 2022-2024.

IGT v Zynga, patent infringement, networked gaming systems
Client: Baker Hostetler for plaintiff. Analyses: validity, infringement, source code. Testimony: declaration, deposition, jury trial. Jury verdict for defendant. 2022-2023.

Zynga v IGT, IPR, gaming systems and methods
Client: Baker Hostetler for patent owner. Analyses: claim construction, validity. Testimony: declaration, deposition. Claims found unpatentable. 2022-2023.

Acquisition consultation, networked gaming patents
Client: patent acquisition/monetization firm. Analyses: infringement claim charts, validity in view of same. 2022.

Schuster v. Wynn Resorts, unfair business practices and breach of contract, TITO ticket redemptions
Client: Garick Law for plaintiff. Analyses: contracts, documentary evidence, financial data. Testimony: declaration, deposition. Case dismissed. 2022-2023.

Fortunet v. Playbook Publishing, misappropriation of trade secrets, proprietary wagering methods
Client: Hartwell Thalacker for plaintiff. Analysis: comparison of both parties' wagering methods. Testimony: bench trial. 2022-2023.

Epic Tech LLC v. Pen-Tech LLC, patent infringement, networked gaming systems/methods
Client: Fisher Broyles for defendant. Analyses: claim construction, validity, infringement. Testimony: declarations, deposition, hearing. Asserted patent found ineligible. 2021-2024.

Zenergy Systems, LLC v. Everi Payments, Inc., breach of contract, casino charitable donation systems
Client: Pisanelli Bice for defendant. Analyses: contracts, documentary evidence, prior art, source code. Testimony: deposition. 2021-ongoing.

Pre-litigation analysis, networked gaming technology
Client: counsel for potential defendant. Analyses: validity, infringement. 2021.

Big Run Studios v AviaGames, copyright infringement, mobile gaming systems
Client: Perkins Coie for defendant. Analyses: comparison of parties' products. Confidential settlement. 2022-2024.

Skillz Platform v AviaGames, patent infringement and IPR, networked gaming systems/methods
Client: Perkins Coie for defendant/IPR petitioner AviaGames. Analyses: claim construction, validity, infringement, source code. Testimony: declaration. Confidential settlement. 2021-2024.

Interactive Communications Int'l, Inc. v. Blackhawk Network, Inc., PGR, lottery system
Client: Cooley for patent owner. Analyses: claim construction, validity. Testimony: declaration, deposition. Challenged claims found unpatentable. 2021-2022.

Playtika Ltd. v. NEXRF Corp., IPRs, networked gaming systems/methods
Client: Finnegan, Henderson for petitioner. Analysis: validity. Testimony: declarations, deposition. Patent found ineligible, case terminated after appeals waived. 2021-2022.

MQ Gaming v. LEGO Systems, patent infringement and IPR, networked gaming systems/methods
Client: Finnegan, Henderson for plaintiff/patent owner MQ Gaming. Analyses: validity, infringement, source code. Confidential settlement. 2020-2021.

GREE v. Supercell Oy, patent infringement, networked gaming systems/methods (multiple matters)
Client: Fenwick & West for defendant. Analyses: claim construction, validity, infringement, source code. Testimony: declarations, depositions, jury trials. Jury verdicts for plaintiff, then confidential settlement. 2019-2021.

INAG, Inc. v. Richar, Inc., patent infringement, casino gaming equipment
Client: Fisher Broyles for defendant. Analyses: claim construction, validity, infringement. Testimony: deposition, trial. Jury verdict for defendant. 2020-2024.

Epic Tech LLC v. Fusion Skill, Inc. et al., patent infringement, electronic sweepstakes machines
Client: Dunlap Codding for defendant Texas Wiz. Analyses: validity, infringement, source code. Testimony: declarations, deposition. Asserted patents found ineligible. 2020-2022.

Universal Entm't Corp. v Aruze Gaming America, patent infringement, electronic gaming machines
Client: Klarquist Sparkman for defendant. Confidential settlement. 2020-2023.

Bot M8 LLC v. Sony Corporation of America, patent infringement, networked gaming system
Client: Kramer Levin Naftalis & Frankel for plaintiff. Analyses: validity, infringement, source code. Testimony: declarations, deposition. Asserted patent found ineligible. 2019-2020.

Savvy Dog Systems LLC v. Pennsylvania Coin LLC, patent infringement, pre-reveal gaming machines
Client: Morgan, Lewis & Bockius for defendant. Analyses: claim construction, validity, source code. Testimony: declaration, deposition. Asserted patent found ineligible. 2019-2022.

Tipping Point Gaming v. Caesars Entertainment, trade secret misappropriation, casino system
Client: Greenberg Traurig for defendant. Analyses: trade secret, prior art. Claims dismissed with prejudice. 2019.

MGM National Harbor v. Markel Insurance, damage assessment, electronic gaming machines
Client: DeCaro Doran for defendant. Analyses: gaming machine evaluation after water damage, financial damages. Satisfactory settlement. 2019-2022.

Aristocrat v. Ainsworth, trade secret misappropriation, gaming machine technology
Client: Gilbert + Tobin for plaintiff. Analyses: forensic par sheet examination, mathematical analysis. Confidential settlement. 2019-2020.

Treehouse Avatar v. Valve Corp., patent infringement, networked gaming system
Client: plaintiff. Analyses: validity, infringement, source code. Testimony: deposition. Case dismissed. 2018-2021.

FigureFun LLC v. LEGO Systems, patent infringement and IPR, electronic gaming machines
Client: plaintiff/patent owner. Analyses: claim construction, validity. Testimony: declarations. Final written decision. 2018-2019.

Bookman v. Resorts World Casino, Genting New York and Int'l Game Technology (IGT), breach of contract & negligence, slot machine abnormality/withheld jackpot
Client: Alan Ripka for plaintiff. Analysis: forensic gaming machine investigation. Testimony: expert affidavit. Satisfactory settlement. 2018.

IPR, networked gaming system
Client: counsel for patent owner. Analysis: validity. Removed from case. 2017-2018.

Aristocrat Technologies v. High 5 Games, IPR, slot machine method
Client: Covington & Burling for petitioner. Analysis: validity. Testimony: declaration, deposition. All claims unpatentable. 2017-2019.

Video Gaming Technologies (VGT) v. Castle Hill Gaming, misappropriation of intellectual property, Class II gaming machines
Client: Covington & Burling for plaintiff. Analyses: Class II gaming machine functionality, trade secret, trade dress, source code. Testimony: declarations, deposition. Public settlement of $3M. 2017-2019.

Kentucky Horse Racing Commission, et al. v Family Trust Foundation of Kentucky, compliance investigation, electronic gaming machines
Client: Stoll Keenon Ogden for petitioner Keeneland Association. Analyses: behavior of historical horse racing (HHR) machines in view of regulations and state court opinions. 2015-2018.

Int'l Game Technology (IGT) v. Aristocrat Technologies, patent infringement, gaming machines
Client: Covington & Burling for defendant. Analysis: validity. Testimony: declarations. Confidential settlement. 2015-2016.

AmTote International v. Kentucky Downs, misappropriation of intellectual property, networked gaming system
Client: Gilbert's LLP for plaintiffs AmTote and PariMAX. Analysis: historical horse racing (HHR) machines, system architecture, pari-mutuel mathematics, trade secret. Confidential settlement. 2015-2018.

IGT v. AmTote International, patent infringement (pre-litigation), networked gaming system
Client: Gilbert's LLP for defendant. Analysis: validity. Litigation averted due to my analysis. 2015.

International Internet Technologies, LLC v. Sweepstakes Patent Company, LLC, CBM review, networked gaming system
Client: Schneider Rothman for patent owner. Analyses: validity, infringement. Testimony: deposition. Patent found invalid. 2015-2016.

Abnormality analysis, networked gaming machines
Client: counsel for defendant. Analyses: log file, source code. Confidential settlement. 2015-2016.

MEI-GSR Holdings, LLC d/b/a Grand Sierra Resort v. Peppermill Casinos, Inc., misappropriation of trade secrets, slot machine par settings
Client: Robison, Belaustegui, Sharp & Low for defendant. Analyses: trade secret, reverse engineering, damages. Testimony: jury trial. Jury verdict for defendant. 2014-2016.

MGT Gaming v. Aruze, patent infringement, slot machine system
Client: Watson Rounds for defendant. Analyses: claim construction, validity. Testimony: declaration. Confidential settlement. 2014-2015.

SHFL Entertainment v. GTECH, patent infringement, online gaming system
Client: McCarter & English for defendant. Analysis: claim construction, validity. Confidential settlement. 2014.

Stephenson v. Worldwinner, IPR, networked tournament system
Client: Merchant & Gould for patent owner. Analyses: claim construction, validity. Testimony: declaration, deposition. Patent invalid for anticipation. 2013-2015.

Agincourt Gaming v. Zynga, patent infringement, network gaming system
Client: Quinn Emanuel Urquhart & Sullivan for defendant. Analysis: validity. Confidential settlement. 2013-2014.

eLot v. GTECH, patent infringement, networked lottery system
Client: Finnegan, Henderson, Farabow, Garrett & Dunner for defendant. Analysis: validity. Confidential settlement. 2013.

Big Daddy Games v. Reel Spin Studios, copyright infringement, gaming machines
Client: Michael Best for defendant. Analysis: graphical assets, source code. Testimony: declaration, deposition. Confidential settlement. 2012.

Seneca Nation of Indians v. State of New York, regulatory dispute, video lottery terminals
Client: Kanji & Katzen / Harter Secrest & Emery for plaintiff. Analyses: hardware functionality, network protocol, gameplay, regulatory. Testimony: sworn witness statement, hearing. Public settlement of over $600M dispute. 2012-2013.

Safe Gaming System Inc. v. Atlantic Lottery Corp., patent infringement, networked gaming system
Client: Borden Ladner Gervais for defendant. Analyses: claim construction, validity, infringement. Testimony: bench trial in Federal Court of Canada. Dismissal / judgment for defendant. 2012-2018.

eLot v. Atlantic Lottery Corporation, patent infringement, Internet lottery system
Client: Borden Ladner Gervais for defendant. Analyses: claim construction, validity. Favorable settlement shortly after my report was submitted. 2012-2014.

Fortunet v. Playbook Publishing, misappropriation of trade secrets, proprietary wagering methods
Client: Watson Rounds for plaintiff. Analysis: comparison of both parties' wagering methods. Testimony: jury trial. Jury verdict partly in favor of plaintiff. 2011-2013.

McKee v. Isle of Capri Casinos, breach of contract & consumer fraud, slot machine abnormality/withheld jackpot
Client: Donnelly Nelson Depolo Murray for plaintiff. Analysis: slot machine forensic report. My engagement was terminated when I disputed counsel's technical interpretations. Summary dismissal. 2011-2012.

Legal iGaming / Zynga v. Int'l Game Technology (IGT), patent interference, networked gaming system
Client: Morrison Foerster for senior party defendant. Analysis: claim construction, validity. 2011.

Gaming patent review (pre-litigation/confidential), networked gaming machine methods
Client: Counsel for potential plaintiff. Analyses: prior art research, validity, infringement. 2011.

Lottotron v. Allgames Casino, patent infringement, remote wagering system
Client: Stadheim Grear for plaintiff. Analyses: damages for defaulting defendants. Testimony: declaration, hearing. Plaintiff awarded damages over $14M. 2011.

WMS Gaming v. Bally Technologies, patent infringement, slot machine technologies
Client: Quinn Emanuel Urquhart & Sullivan for defendant. Analysis: validity. Confidential settlement. 2011.

Lottotron v. EH New Ventures, patent infringement of remote wagering system
Client: Stadheim Grear for plaintiff. Analyses: infringement. Testimony: declarations, deposition, jury trial. Jury verdict for defendant. 2010-2012.

Compliance investigation, charitable bingo machines
Client: Thunderbird Casino, Costa Rica. Analyses: investigation of gameplay on electronic bingo machines, comparison to regulatory language. Written report submitted to national legislator. 2010-2011.

Compliance investigation, charitable bingo machines
Client: Alabama Attorney General. Analyses: investigation of of gameplay on multiple manufacturers' electronic bingo machines in view of Alabama Supreme Court ruling, pre-litigation technical support. Project terminated due to Governor's intervention. 2010.

State of California v. Wilkins, theft, casino loyalty club points
Client: Public Defender, Humboldt County, CA for defendant. Analyses: evaluation of casino accounting data, damages calculation. Case settled for the amount I calculated. 2009-2010.

Dottie Janousek v. Canyon Casino, breach of contract, slot machine abnormality/withheld jackpot
Client: Helmer McElyea for plaintiff. Analysis of slot machine forensic report. Based on my analysis, plaintiff received satisfactory settlement. 2009.

Golden Route v. Ardent Gaming, breach of contract, casino accounting system
Client: John Peter Lee for defendant. Analyses: contract language, software specification, system data. Confidential settlement. 2009.

Cranway v. Playtech (United Kingdom), patent infringement, online gaming system
Client: Herbert Smith for plaintiff. Analyses: infringement, validity. Testimony: declaration, bench trial in High Court in London. Patent found invalid. 2008-2009.

International Gamco v. Multimedia Games, patent infringement, video lottery system
Client: Luce, Forward, Hamilton & Scripps for defendant. Analyses: infringement, validity. Testimony: declarations, deposition. Summary judgment for defendant. 2006-2010.

Aristocrat Technologies v. Multimedia Games, patent infringement, video lottery machines
Client: Luce, Forward, Hamilton & Scripps for defendant. Analyses: infringement, validity. Testimony: declarations, deposition. Settled in favor of defendant shortly after my deposition was taken. 2006-2008.

HomeBingo v. Multimedia Games, patent infringement, electronic bingo system
Client: Fish & Richardson for defendant. Analyses: claim construction, infringement, validity. Testimony: declaration. Settled in defendant's favor after claim construction order. 2006-2007.

State of Mississippi v. (unknown defendant), felony cheating at gambling
Client: Mississippi Gaming Commission. Analysis: statistical evidence for cheating vs. probability of random outcomes. Indictment handed down by grand jury. 2005.

PUBLICATIONS AND MEDIA INTERVIEWS

April 2014   Web radio interview for Casino Enterprise Management podcast "Casino Talk with Brooke Dunn" regarding new casino game concepts.

January 2011   Video interview for CBS News show "60 Minutes" regarding video slot machine gameplay. Published on the CBS News website.

March 2010   Written article in Casino Journal: "Gaming's Greatest Hits: 6 Ideas that Changed the Industry"

March 2007   Radio interview for National Public Radio show "Justice Talking" regarding slot machine design and mathematics.

WORK AND BOARD EXPERIENCE

2001-present **OLYMPIAN GAMING, LLC**, Lake Oswego, OR
Gaming industry consulting, intellectual property consulting and game development
President
- Developed profitable consulting practice around casino gameplay development and analysis, including custom software simulation and analysis
- Designed slot game models and new game features for land-based and online gaming vendors. Client list includes WagerWorks (IGT), Electronic Arts, Double Down Interactive, Chartwell Technology, Parlay Entertainment, Diamond Game, Phantom EFX, and DEQ Systems.
- Designed and/or analyzed keno, bingo, lottery, blackjack, craps, roulette, poker, video poker, and many novel gaming propositions
- Social game design and virtual economy design for casual mobile or web games
- Advised clients in IP strategy, including patent clearance and potential design-arounds
- Provided expert witness testimony in many gaming-related lawsuits
- Developed IP portfolio including over 30 issued US patents and several trademarks
  - Executed IP licenses with several casino operators and gaming vendors
- Held licenses from Washington State Gambling Commission and Nisqually Tribal Gaming Commission; achieved regulatory game approvals in WA, NV, MS.

2014-2020 **CONGREGATION BETH ISRAEL**, Portland, OR
Board Treasurer, 2018-2020
Member, Board of Trustees, 2014-2018

2011-2013 **DOUBLE DOWN INTERACTIVE / INTERNATIONAL GAME TECHNOLOGY,** Seattle, WA
Social casino operator
Game Design Consultant / Gaming Strategist
- Redesigned and corrected casino game implementations for DDI's social casino game website
- Led casino-industry education efforts for non-casino casual games staff
- Designed all of DDI's casino gameplay prior to its $500M acquisition by IGT
- Product integration between DDI's social games platform and IGT's slot machine content
- Internal gaming expert for evaluating new product submissions and patent filings

2011-2014 **VIZKINECT,** Reno, NV
A visual data capture and analysis company
Member, Board of Advisors
- Advising early-stage technology company on strategic direction and application of biometric capture technology, including eye tracking and galvanic skin response, across several verticals

2006-2008 **NIKE,** Beaverton, OR
A leading athletic footwear and apparel brand
Senior Enterprise Architect
- Delivered service-oriented architecture (SOA) strategy and web service solutions
- Facilitated application and service architecture for key eCommerce initiatives
  - Resulted in over $1.4M in incremental revenue in first quarter after go-live
- Authored and delivered executive-education presentations on SOA and Web 2.0 collaboration

2003-2005 **SYSTEMS RESEARCH AND DEVELOPMENT** (acquired by IBM), Las Vegas, NV
A boutique software consultancy and developers of a fraud/collusion detection platform
Senior Software Engineer and Technical Consultant
- Developed high-throughput data analysis software for use in identifying casino cheating rings and international terrorist cells: prevented at least two domestic terrorist incursions
- Derived computational algorithms for uncovering connections in biographical data
  - Improved processing efficiency and throughput by 66%
- Directed technical team during onsite implementation of secure web services for DoD/U.S. Navy Horizontal Fusion initiative, and provided military-spec technical documentation.
  - Successful deployment resulted in $90M acquisition by IBM

2002-2003 **PLUMTREE SOFTWARE** (acquired by BEA), San Francisco, CA
A pure-play portal software vendor
Senior Software Engineer
- Delivered web service-based portal application (portlet) SDK for both Java and MS .NET
  - Contributed to over $50M in portal software sales
- Delivered .NET custom controls and Visual Studio plug-ins for no-code portlet development
- Contributed to web standards committees and helped architect remote portlet infrastructure

2000-2001 **RAPT** (acquired by Microsoft), San Francisco, CA
A supply-planning and pricing optimization software vendor
Technical Implementation Engineer
- Managed client integration for software implementations at Sun Microsystems and H-P
  - Resulted in top-line uplift of $30M/quarter or roughly 2% revenue growth
- Developed custom SQL and PL/SQL database extraction/reporting software to deliver real-time intelligence to supply planning staff
  - Resulted in $15M/quarter cost reduction or roughly 2% profit growth

1998-2000 **SILICON GAMING** (acquired by IGT), Palo Alto, CA
A casino slot machine manufacturer
Game Model Engineer
- Self-education in probability theory and combinatorics led to successful employment as a casino gaming mathematician
- Designed game flow and storyboards for slot machines, and developed and shipped over 50 mathematical game models
  - Resulted in sales of hundreds of slot machines and over $10M in revenue
- Managed statistical verification and mathematical gameplay testing
- Liaison to state regulatory agencies; corrected prior errors in gaming lab submissions
  - Saved over $50,000 in regulatory fees

1996-1998 **ORACLE**, Redwood Shores, CA
A leading database and application software vendor
Software Engineer / Senior Software Engineer
- Responsible for final-tier maintenance engineering for premier Oracle clients
- Proposed and achieved consensus on enhancements to worldwide support process, and rolled out new process within my own organization.
  - Resulted in 50% decrease in defect reports and 10% increase in CSR response
- Earned promotion to Senior Engineer within 12 months
- Managed scalability and performance testing process, and designed scalability test suite
- Directed performance testing during pre-sales engagement with the Norwegian tax authority
  - Resulted in a 10-year, $3.5M license

EDUCATION

1992-1996 **HARVARD UNIVERSITY**, Cambridge, MA
Bachelor of Arts in Computer Science, *magna cum laude*
- John Harvard and Harvard College scholarship awards
- "Empirical Testing of Algorithms for Variable-Sized Label Placement" published in 1997 Journal of the Symposium on Computational Geometry