

Brad Thomas Ulrich

Computer Scientist

Quandary Peak Research
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EMPLOYMENT

Expert Consultant

June 2012 – Present

Quandary Peak Research, Los Angeles, CA

- Providing sound and knowledgeable computer software analysis and expert witness services in software-related litigation.
- Experienced in expert reports, depositions, and code review for cases involving patent claims and infringement analysis and software project cost and impact analysis.
- Contributing expertise in smartphones (Android, Windows Mobile, Windows Phone 7), mobile apps, embedded systems and cellular devices, enterprise web applications, graphics and media.
- Offering law firms clear and effective software code analysis in languages and platforms including Java, Android, Objective C, C++, Python, C#, Microsoft .NET, and Web 2.0 APIs.
- Successfully delivered code review and infringement analysis for Desmarais LLP in two high-profile patent cases (*MobileMedia Ideas, LLC v. HTC Corporation and HTC America, Inc.*, and *Nokia Corp. and Intellisync Corp. v. HTC, HTC America, Inc., and Exedea, Inc.*), providing review for 12 patents across 29 smartphone models running the Android, Windows Mobile and Windows Phone 7 operating systems.
- Authored expert report and provided deposition testimony for Montgomery County in *Yazmin Reyazuddin v. Montgomery County, Maryland*; expert rebuttal and analysis on project cost and impacts.
- Authored expert report for Newman Du Wors, LLP for a patent infringement case involving PHP-based web searching technology.

Chief Technology Officer

Nov 2011 – Apr 2013

Genesis Health Technologies LLC, Paducah, KY

- Managing the commercial launch of Genesis' flagship products and technology services for diabetes healthcare: the Genesis Blood Glucose Meter (BGM) - a cellular-enabled blood glucose monitor for home use; and the Genesis Health Record Systems (GHRIS) - a web- and mobile app-based system for real-time diabetes management.

- Developed and implemented internal processes for compliance with federal FDA Quality Management Systems (QMS) guidelines through various software documentation and risk management controls.
- Developed and submitted final Software Documentation for official FDA 510(k) submissions for both the Genesis BGM and Genesis BGMS.
- Managed a technical team in the regulatory testing and device certification requirements for the Genesis BGM, including FCC testing and Verizon device certification.
- Successfully managed the build and launch of the GHRS, including recent improvements for enterprise-level professional use and cloud-based APIs to Verizon eBiz and nPhase.

Project Manager

Feb 2011 – Nov 2011

Genesis Health Technologies, Paducah, KY

- Managed software development team and delivered to client on-time a Blackberry mobile phone application for the gDrive™ Blood Glucose Meter; implemented a phone-to-meter two-way USB control interface.
- Assisted with the design and testing of a secure AES-128 bit encrypted, tcp-based communication protocol between the meter's CMDA module and a linux-based TCP Server.

Co-Founder and CEO

Aug 2009 – Nov 2011

mSight Mobile, Nashville, TN

- Pioneered the development of Google Android applications as an early adopter, beginning with Android SDK v1.1.
- Contracted with Premo Applications, LLC to design, develop, market and release the App-Packs suite of apps on the Google Android Market (now named Google Play).
- Designed a Java and Android SDK-based secure licensing API enabling packages of applications to be sold as a single transaction using the Google License Verification Library (LVL).
- Developed PhoneFraise, one of the longest-running games on the Google Android Market and one of first applications to integrate with Facebook "Like" and Twitter "Tweet" APIs.

Co-Founder and Project Leader

Mar 2010 – Apr 2011

Pubpicks.net, Nashville, TN

- Worked in a joint venture with mSight Mobile, LLC and The Melrose Pub to successfully design, develop, test and release PubPicks – an interactive, phone-based sports game played on-location at bars and restaurants during live sporting events.
- Designed a cutting-edge, cross-platform, in-browser architecture for the PubPicks app using HTML-5, jQueryMobile, and GPS-based location awareness.

- Managed product development team of two designers and two developers to build, test, demo, and launch the product ahead of schedule in bars and restaurants in Nashville.
- Managed game administration team of six people to advertise, administer and run the game in three restaurants in the Nashville area during the 2010-11 NFL season and the 2011 Men's "March Madness" NCAA Basketball Tournament.

Software Developer

Feb 2006 – Mar 2008

Independent Contractor, Nashville, TN

- Contracted to successfully develop and release a web-based financial trading software plug-in for eSignal to provide enhanced trading data download functionality; utilized PHP/MySQL.
- Successfully ported a suite of trading system tools and financial trading indicators from Java to C++.
- Developed, tested and deployed on-schedule a major rebuild of the member website of the American College of Neuropsychopharmacology (ACNP) using ASP.NET and Microsoft SQL including integration with iMIS donor software.
- Developed, tested, and released an interactive drawing and markup tool for medical applications in VB.NET for Ulrich Medical Concepts, Inc's. Team Chart Concept (TCC) software.

Director of Technology

Oct 2007 – Dec 2009

MOR Technology, Metropolis, IL

- Played an integral role in the development and implementation of a two-year, \$2,000,000 strategic plan to rapidly develop and commercialize process technologies for the renewable energy and commodity processing industries.
- Successfully tested and demonstrated proprietary technologies in the laboratory and at pilot-scale research facilities in Missouri, Iowa, Illinois, Texas, and Canada.
- Successfully proposed and received a \$150,000 matching grant from the Illinois Corn Marketing Board for the installation of a \$300,000 demonstration and testing facility at the Illinois River Energy Ethanol Plant in Rochelle, Illinois; assisted in project planning, test program implementation and data collection during the successful installation, start-up, and operation of the facility.
- Assisted company engineers and intellectual property law firm C.R. Miles to develop and protect the company's IP, including filing four patent applications.
- Developed programmable process plant operational models and tailored models for potential customers based on individual plant design, logistics, and commodity pricing scenarios for their locations.
- Developed and refined company branding, logos, advertisements, website, and press releases, in collaboration with the Director of Business Development and outside consultants.

- Oversaw the formation of a subsidiary technology company, MOR Supercritical, LLC, by the company's legal team in March 2008; current member of the Board of Directors.
- Managed business development effort for MOR Supercritical's algae-to-biofuels oil extraction technology; drafted and filed grant applications through the State of Pennsylvania and DARPA.
- Drafted, filed for and received three grants for the companies, totaling \$195,000.
- Assisted a legal and executive team in drafting a private placement memorandum offering to sell securities in the company; directly marketed the securities and successfully raised over \$1,000,000 in outside funding for the company.
- Interfaced with legal representatives of multiple stakeholders to oversee the formation of a joint venture technology company, MOR Value Products, LLC in February 2009 with Japanese partner Itochu.

Project Developer

May 2005 – Dec 2007

MOR Energy, Grand Chain, IL

- Co-founded company to develop a proposed \$250,000,000 ethanol plant in Southern Illinois.
- Reviewed and selected primary, next-generation ethanol production technologies; performed technical feasibility and risk assessment, economic modeling and business case analyses for the project; selected technologies for implementation.
- Participated in selecting members of the project development team, including legal, business and finance consultants, local and state economic development agencies, environmental engineers, process engineers, energy suppliers, and owner's engineers; helped to negotiate project contracts in excess of \$800,000.
- Coordinated project development, successfully achieving early milestones, including technology selection, site selection and layout, site engineering, preliminary process design, and air and water permit acquisition.
- Supervised development and drafting of the company business plan, including detailed financial *pro formas*.

Software Engineer

Nov 2003 – Nov 2005

Ulrich Medical Concepts, Paducah, KY

- Member of 4-person engineering team providing active software development and support for the Company's flagship product: Team Chart Concept (TCC), and electronic medical record, billing, and office management software solution medical practices and correctional facilities with over 1,000 medical health professional users in 10 states.
- Designed and developed from conception to release an integration of TCC with the UnicorMed-Easy Code Win32 DLL, allowing medical practices to maximize insurance reimbursements.

- Designed and implemented a Win32 module providing new functionality for digital annotation/markup of medical images and diagrams with customizable database linkage as lead developer on a three person team.
- Developed and successfully released a WinCE application for handheld devices that enabled off-network collection of medical data and synchronization with the primary database and application server.
- Managed and performed development tasks throughout product life-cycles, from needs assessment and definition through internal reviews/releases, quality assurance, documentation, developer and sales employee training, release, and maintenance.
- Researched evolving government and industry compliance requirements and implemented software and controls for various standards and organizations as including HL7, X12, Medicare/Medicaid, HIMSS, HIPAA, and others.

Co-Founder, Chief Technology Officer

Jan 2005 – Dec 2010

The Dynamic Market Lab, Paducah, KY

- Co-founded the company, an on-going and profitable business with over 400 customers in 10 countries.
- Developed and marketed the company's flagship product, Adaptive Cycle Toolkit (ACT), a top-selling Official Add-On software module for the Metastock Professional Trading Platform.
- Successfully procured a worldwide marketing and license agreement with Equis International, a subsidiary of Thomson Reuters.
- Designed and developed engineering-based financial trading indicators using advanced signal processing mathematics.
- Created from conception through commercial release the complete ACT product - a Win32 C++ application that includes over 60 financial time-series indicators, several trading systems and tools, a website and a 90-page user manual.

EDUCATION

B.S. in Computer Science with *cum laude* honors, Vanderbilt University

May 2004

B.S. in Mathematics with *cum laude* honors, Vanderbilt University

May 2004

LITIGATION CONSULTING

MobileMedia Ideas, LLC v. HTC Corporation and HTC America, Inc. July 2012 – Mar 2013

Jurisdiction: U.S. District Court for the Eastern District of Texas
Counsel: Desmarais LLP
Nature of Suit: Intellectual Property – Patent
Description of Services: Delivered code review and infringement analysis providing review for nine patents across 29 smartphone models running the Android, Windows Mobile and Windows Phone 7 operating systems.

Yazmin Reyazuddin v. Montgomery County, Maryland Aug 2012 – Present

Jurisdiction: U.S. District Court for the District of Maryland (Southern Division)
Counsel: Office of the Montgomery County Attorney
Nature of Suit: Reasonable Accommodations Dispute Re: Section 508 of the Rehabilitation Act
Description of Services: Authored expert report and provided deposition including analysis of project cost and impacts for a Siebel Public Sector call center installation.

Nokia Corp. and Intellisync Corp. v. HTC, HTC America, Inc., and Exede, Inc. Feb 2013 - Present

Jurisdiction: United States International Trade Commission
Counsel: Desmarais LLP
Nature of Suit: Intellectual Property – Patent
Description of Services: Delivered code review and infringement analysis for three patents across a number of smartphone models running the Android operating system.

Wisconsin Technology Venture, LLC v. Fatwallet, Inc. Mar 2013 – Present

Jurisdiction: U.S. District Court for the Western District of Wisconsin
Counsel: Newman Du Wors LLP
Nature of Suit: Intellectual Property - Patent
Description of Services: Provided source code review and analysis and authored expert report.

Anthony Dike, M.D. v. Kindred Healthcare Operating, Inc. Mar 2013 – Present

Jurisdiction: Superior Court of the State of California, County of Los Angeles – East District
Counsel: Giovanniello & Michels, LLP
Nature of Suit: Loss of Property
Description of Services: Providing expert opinion on the value of medical software.

N5 Technologies, LLC v. Capital One, N.A., Capital One Bank (USA), and Capital One Services, LLC June 2013 – Present

Jurisdiction: U.S. District Court for the Eastern District of Virginia
Counsel: Panovia Group, LLP
Nature of Suit: Intellectual Property - Patent
Description of Services: Provided source code review and analysis of mobile banking SMS application

PROFESSIONAL AND TECHNICAL EXPERTISE

Software Languages and Platforms:

Mobile and Social: Java/JavaEE, Google Android SDK (v1.1 through 4.1), Google Maps API, Google Licensing API, Google Cloud Messaging API, Google Wallet, Apple iOS, iPhone SDK, Objective C, Facebook API, Twitter API, Blackberry SDK, Windows Phone, Sencha, Appcelerator Titanium

Web: Google APIs, RESTful APIs, Java EE, Swing, Spring Framework, HTML5, CSS, javascript, jQuery/jQueryMobile, django, Python, Chef, Fabric, PostgreSQL, json, SOAP, XML, PHPMyAdmin, Rackspace Cloud, Amazon EC2, Apache, Ruby, Gunicorn, nginx, ZeroMQ, RabbitMQ, SendGrid, Twilio, Perl, Linux, SMS, HTTP, TCP/IP, CDMA, GSM, Zigbee, Bluetooth

Microsoft Platforms: .NET, ASP.NET, C#, VB.NET, Windows Phone SDK, IIS, COM/DCOM, Visual C++, Win32 applications and DLLs, WinCE applications, MFC 6.0, Visual Basic 6.0

Database and ERP: MySQL, PostgreSQL, Oracle, Siebel, OFBiz, OpenERP, JDBC, ADO.NET, OLE, Microsoft SQL, SugarCRM

Project Development and Management: Eclipse, Visual Studio 6, 8, 2005-2010, Visual Studio .NET, Siebel Tools, Visual Paradigm, UML, Github, JIRA, COCOMO, Microsoft Project, Visual SourceSafe

Medical/Compliance: HL7, CCD, X12M, DICOM, 510(k), PCT Codes, IDC-9, HIPAA, Meaningful Use, ISO 94791, ISO 62332, ISO/IEEE 11073, 510(k), CCDs

Other: MATLAB, eSignal, TradeStation, AutoCAD, Adobe Photoshop, Google Apps

Skills and Experience:

Software Development: desktop applications, mobile and web applications, object-oriented design, web services, design patterns, graphics and animation, image and media processing, embedded and cellular device application and frameworks, machine-to-machine platforms, ERP applications, agile development, scalable design, process controls, documentation and technical writing, database design and optimization

Software Project Management: project design, life-cycle and change management, design audits, cost estimation, process controls and professional standards compliance, risk management

Technology Management and IP: risk management, IP portfolio management and strategy, staffing and team management, strategic planning, market analysis, technology licensing agreements, software terms of service and privacy policies, confidentiality agreements, service agreements

Business Administration: business organization and legal structuring, LLC formation, private placement memorandums, series financing, stock option agreements, equity/debt structures

Analytics and Finance: statistics and numerical analysis, signal processing algorithms and systems, financial trading indicators and systems, business accounting, finance math, business valuation methodologies

Medical: FDA 510(k) pre-market notification for medical devices filings; QMS compliance, HIPPA compliance, EMR and EHR systems, medical devices

Expert Legal Services in Computer Science: expert reports, deposition, testimony, code review, patent claims analysis, patent infringement litigation support, software cost and impact analysis, defect analysis, forensics, software licensing and contracts

PROFESSIONAL ASSOCIATIONS

Member, IEEE Computer Society