

Mark Richard Beaulieu

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<http://www.linkedin.com/pub/mark-beaulieu/1/8a7/77a/>

Software director who has come through the ranks of software engineers specializing in multi-tier mobile wireless web solutions. By collaborating with innovation teams with a practical solutions-oriented mindedness he leads he has solved complex problems in wireless web and application services, produced new revenue streams. He looks ahead to build a lasting engineering organization to sustain further growth. Successfully combines technical knowledge, motivational talent, artistic skill, focused on detail and follow-through to ship and maintain products. Has proven development skills in international multi-platform software projects based on Windows, Linux, Mac OS X, Mac iOS, .NET, Android, Java, WiFi, CDMA, GSM, HSDPA, LTE wireless systems. Excellent experience in technical management, architecture, code development, professional services, and technical marketing.

Experience

Wireless Internet & Web
Mobile Telecommunications
Software Multimedia Applications
Database Development
User Interaction & Testing

Responsibilities

Director Engineering Technology
Production Architecture
Lead Software Development
Business Advisor
Project Management

Creative and resourceful solutions to complex interdepartmental challenges; track-record of successful systems; direct end-customer & partner relationships; leadership skills, develop close-knit production teams; rapid prototyping; deliver products to new markets especially combining application software with 3G and 4G telecommunications. Research knowledge encompasses wireless, multimedia, software development, database, and web technologies, financial and marketing planning. GPS & Multimedia specialty. Well versed in industry trends, commercial end-user targets and have extremely strong writing, communication, mentoring, interpersonal, and teaching skills.

Development SDK environments: C, C++, C#, .NET, XCODE, Perl, Java, Windows – XP, Vista, Windows 7, ASP, UNIX, Linux, Mac OS X, iPhone/iPad SDK, Android, BREW, J2ME, Magic Cap, NT, Objective C, Object-oriented C, Visual Studio 2005, Eclipse, Visual Basic, MS Access, SQL Server, HTML, XML, WML, i-mode, Telescript. **Applications Developed:** Wireless device management, tracking servers, wireless mobile applications, Internet client & web servers, multi-platform device gateway and database, Avaya and Rockwell voice switching, near realtime application servers, GPS/LBS mapping, spreadsheets, contractor dispatch, typesetting, parsing tools, web maintenance tools, graphic and font editors, database publishing. **Industries:** business, sports, gaming, publishing, police operations, civil inspection, stock market trading, travel guides, weather, airline reservations. **Media Tools:** Visio & OmniGraffle, Final Cut Pro, , SuperCard, Revolution, Soundedit, PowerPoint, Word, Excel, FrameMaker, Aperture, Photoshop, Illustrator, FrontPage, Flash, Dreamweaver.

Senior Technology Consultant Clients include, Microsoft, UnifyCloud.com, NASA Ames.

Digital Lantern, San Diego
April 2011 – Current



- Interviewed over 200 engineers to build software teams in Seattle, and Noida, India.
- Advise on mobile device suitability for cloud computing.
- Developed Cosmic Web digital video and prints for exhibition for NASA Ames.

Director SW Engineering

Novatel Wireless Inc, San Diego
January 30, 2006 – March 2011



Transformed development effort tripling the software engineering staff, managing 43. Improved architecture, lifecycle process quality, select technology, group morale to make innovative software for a demanding industry. www.novatelwireless.com

- Bridged company teams to produce solutions by envisioning the next generation connection management system, GPS/LBS, device tracking, MiFi Android-like system architecture, and applications.
- Proposed AoP SW plan realized as MiFi earning the company millions of dollars a revenue source.
- Planned SDK and third party APIs for ISV program.
- Built and managed highly effective engineering teams while hiring key talent meanwhile improving less effective engineers.
- Analyzed connection manager market worldwide and wrote the master architecture and process document to give the company a competitive product.
- Analyzed and fixed core problems in client and driver architecture and source code production process.
- Assumed responsibility of Factory Tools Provisioning team, correcting problems in tools architecture and development process improving timeliness and cutting steps in Chinese factory provisioning.
- Led team leads with plan for first GPS products giving company 1 year industry lead. Led vendor and Sprint/Verizon & GSM operator discussions.
- Standards contribution to GSM bodies as an expert in GPS, LBS.
- Represented company at Apple WWDC, O'Reilly Where 2.0 / Google conferences.
- Initiated server product prototypes, hired and directed server and database system design as applications for wireless modems.
- Researched next generation wireless application opportunities.
- Influenced customers and vendors ranging from Dell to Qualcomm.
- Operator technical planning with Sprint, Verizon, and Vodafone.
- Traveled to Europe to improve EMEA products and contribute to wireless notebook and modem standards for GSMA.
- Patent co-invented around personal wireless architecture.
- Advised technical vision/strategy influential to company direction.

Senior Software Manager

eMbiENCE Inc, San Diego
June 9, 2005 – January 15, 2006



Directed 9 engineers and QA team, 22 in Bangalore, India to develop worldwide J2ME and BREW handset applications. Mentored, trained employees on key server and wireless Internet technology. Customer facing, resolving numerous daily operational issues. Worked closely with founders. <http://www.embiENCE.com/>

- Analyzed, wrote specification for both Content Automation Tool, handset DB and directed team to refactor wireless platform to reach over 100 handsets.
- Demonstrated technology to clients and obtained contracts.
- Wrote clear specifications, project management plans to coordinate US, Bangalore and moving customer requirements.
- Contributed to user interface, marketing, & business development.

Senior Software Engineer

Digital Orchid, San Diego
October 16, 2003 –
March 31 2005



Developed IP-networked, real-time wireless software platform on BREW & J2ME devices in C++ and C. Specified and wrote code for sports, gambling, and entertainment applications and server infrastructure with close-knit creative, development and testing team. www.digitalorchid.com

- Architected, prototyped in C# .NET automated content SOA replacement for content generation application server designed to reach over 60 different handsets from one server.
- Wrote encrypted transaction system for Caliente Spanish gambling; realtime NHL sports server for 15 simultaneous games.
- Wrote realtime stream processor and replayer for NASCAR permitting 43 cars to display GPS & telemetry on wireless phones.
- Mentored employees on server, wireless Internet, & NSTL testing.
- Designed wireless database language, wireless markup language. Restructured handset, carrier and product databases and tools.

Director Enterprise Projects

Qualcomm Inc, San Diego
May 2001 – November 2001



Developed enterprise software projects and created training program for Qualcomm's Binary Runtime Environment for Wireless (BREW). Division closed down in 6 months. <http://brew.qualcomm.com>

- Initiated key meetings with key enterprise customers. With IBM, researched client, server, and tools resulting in strategic partnership providing a standard platform and industry recognition.
- Made strategic changes to server architecture. (patent pending)
- Developed BREW training program, served as lead instructor, attracted enterprise customers.
- Hired team and created process to engage multiple enterprises.
- Analyzed competitive and partner technology architectures.
- Introduced EAM server for wireless Internet enterprises.

Chief Wireless Architect

Lutris Technologies, Santa Cruz
April 17, 2000 - April 17, 2001



Developed Java wireless application server technology for Lutris based on the Open Source Enhydra J2EE Application Server. Enhydra uses XMLC as a wireless publishing model for Java three tier architectures. Worked across all lines of the company in consulting services and in pre-sales engineering, produced vertical market plans, wrote white papers. Presented at conferences and trade shows.

- Developed wireless targeted services program that supported sales.
- Wrote Java server code and directed wireless demos and wireless prototypes for Internet business. Extended server platform architecture to include GPS and i-mode.
- Educated company on wireless technology and business.

Senior Software Engineer

General Magic/ICRAS Sunnyvale
December 8, 1997-April 15, 2000



Designed and programmed over a dozen wireless handheld Internet SQL applications working directly with customers, development, and VARs. Provided innovative wireless user interfaces and data access software for the DataRover handheld communicator using 802.11b wireless Ethernet.

- Developed in C MagicCap Remote Access Kit to rapidly develop handheld applications that communicate with corporate databases.
- Designed SQL databases for MS SQL Server, MSAccess, Oracle.
- Rapidly built and documented numerous business applications for field use - ticketing, inspection, dispatch, monitoring, health care.

Director of Product Development

Vivid Travel Network,
San Francisco
August 5, 1996 - June 18, 1997



Directed the Java-based design for a family of Internet, Intranet, and Extranet travel guides, enabling licensed affiliate web sites to deliver unique editorial and advertising destination content in 25 languages.

- Wrote key planning documents, RFP, proof of concept.
- Produced product release and winning affiliate business plan.
- Balanced business objectives with current technology in making build and buy decisions. Defined and acquired tools.

Senior Software Engineer

Sony New Technology, Monterey
July 21, 1993 - July 21, 1996



Designed, programmed, prototyped new PDA products Magic Cap and Telescript systems using the Macintosh MPW.

- Produced Official Airlines Guide (OAG) FlightLine, NTN game service, PCFN MagicBroker stock and option trading, and Farcast personal news service. Work included concept, interface, coding, and focus group testing.
- Contracted outside user interface companies, wrote specifications for client legacy servers, and managed ISV software suppliers.

Founder/Technology Director

Digital Lantern, Mountain View
November 1992 - June 1997



Founded, researched, programmed, marketed Digital Cities Restaurant Guide, an in-depth geocoded personal digital assistant application based in HyperCard and SuperCard. Its innovative map-based interface was featured in *Wired Magazine* July 1993 as *Restaurant Guide Done Right*. Developed web tools including a unique template based parser, .ASP server and Access/SQL database to operate a 1,000,000 hit a month web site. Expanded business to the United States as USRG.COM. Sold *Digital Cities* name to AOL Digital Cities Group.

**Senior Software Engineer/
Technical Research Planner**

Metaphor Computer Systems,
Mountain View
1986-October 1992



Made visual software applications which communicate and controlled by a Capsule™. Used object-based C in a UNIX development environment.

- Designed, coded, and presented spreadsheet to customers. Innovations in user interface and with time calculation functions.
- Managed multilingual spelling checker implementation.
- Investigated multimedia plans for Patriot Partners - Apple & IBM.
- Planned 3rd party development program, coordinated IBM localization development, including UNICODE planning.
- Created multi-platform multimedia center. Created early QuickTime movie "The Revolution will not be Televised."

EDUCATION

Post Graduate	Ph.D. (begun) in Computer Science at University of California, Irvine. (TA)
Graduate	M.F.A. with honors from University of California at Davis. (TA)
Undergraduate	B.A. with honors from Trinity University, San Antonio, Texas

PROFESSIONAL EXPERIENCE

Author 2002

Addison Wesley - San Francisco



Researched and wrote *Wireless Internet Applications and Architecture* (Addison Wesley, December 2001) and teacher supplement for colleges. Comprehensive 632 page three part book explains software and telecommunications development process. Part I, the *Introduction to the Wireless Internet* covers principles and wireless opportunities featuring an in-depth analysis of i-mode. Part II, *Wireless Internet Applications* describes process, personas and examples for every wireless device family. Part III, *Wireless Internet Architecture*, shows server and development solutions using XML and application servers.

Co-Author 1993

Random House - Mountain View



Co-authored and researched *Multimedia, Demystified* a comprehensive, highly popular 288-page book revealing the roles and processes involved in creating the full range of industry multimedia projects. Produced for Apple Computer's Multimedia Development Program. Widely used as a teaching reference. (Apple Press with vivid Publishing, 1993; Random House 2nd edition, 1994).

1978-1986

Aldus (now Adobe), Forethought (now Microsoft), Island Graphics, Via Video, ViewTech, Metatext, Media Plan, Canon.

Senior Software Engineer, Software Engineering Manager, Project Lead, Programmer, Analyst

- Wrote commercial and prototype software in C, Pascal and object-oriented C for typographic, publishing, graphics, user interface, and dispatch systems.
- Analyzed wide range of technologies and strategic directions, proposed detailed studies that led to successful new generations of products. Wrote white papers, produced competitive analysis video reports for both engineering and marketing organizations. Presented new geospatial UI at Stanford University at Terry Winograd's sessions.
- Co-founded Metatext, a prepress time-sharing computer typesetting and services company. Produced the highest quality of computer typesetting composition software for its time. Created database publishing software and engineered a Spanish version for a distributor in Mexico.

Conferences CTIA, CES, TED, Apple WWDC, Where 2.0, SIGGRAPH, Digital World, TAPE1, Seybold Publishing,

Standards Contributed to GSM 3G in Notebooks standards in GPS and concurrency issues.

Arts Novelist expert in 12th century history. Photography, digital printing, digital video, computer graphics. Painting: large scale super-realistic work in collections.

Educator Developed Wireless Internet syllabus. Taught first BREW courses at Qualcomm 2001. Developed and taught "Understanding Media: The Individual and Society with Marshall McLuhan" at SFSU Multimedia Studies Program 1Q,3Q 1996.

Resume of can be found at http://www.markbeaulieu.com/iweb_marktech/Brief.html