

RICHARD REDPATH

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visit:

<http://www.richardredpath.com>

PROFILE

Results-driven computer scientist with award-winning track record of leading teams from R&D to high-speed delivery of highly profitable software solutions. Currently Chief Technology Officer (CTO) for Parhelion Incorporated (DBA Stripelight) as lead engineer for laser technologies and related firmware. Pioneer in laser, mobile, and internet technologies. Researcher as a Research Staff Member (RSM) for 30 years for emerging technology with over 100 patents. Unusually broad and deep technical skills allied history of business product delivery. Particular expertise in cross-platforms mobile and distributed systems, and seamless integration of emerging technologies into large existing business solutions. Proven ability to lead international cross-divisional leadership teams to deliver on all phases of product lifecycle. Engaging speaker with extensive presentation and publication history. Live excerpt of body of work at www.richardredpath.com

GOAL

I enjoy creating new hardware and programming for cornerstone products. My past experience for 25 years in creating the incubator project, implementing and then staffing for product development lends itself for delivery.

SELECTED ACCOMPLISHMENTS

- ✓ Holder of over 100 US Patents issued (latest filed 2020) and patents in Europe and Australia.
- ✓ Selected to represent IBM innovation in public media author Tom Clancy, including CNN interview as well as other regional and national media outlets.
- ✓ Technical consultant for IBM Intellectual Property legal patent defense. USPTO agent.
- ✓ Created robotic software solutions for robot that cleaned Three Mile Island, CMU Terragator.
- ✓ Notable awards include:
 - **Edison award** Year 2015, 2017
 - **Inventor of the Year** of 14,000 candidates at IBM RTP
 - **10 Valuable Patent Awards** IBM Tier I and Tier II
 - **Corporate Management Award** for pioneering Java work 25ys experience
 - **Windows Team Connection Award**
 - **IBM Academy Award** for Java Beans
 - Four-time winner of **Outstanding Technical Achievement Awards:**
 - WCTME Embedded Platform Technical Leadership \$5k
 - Websphere for Handheld devices \$5k
 - Executive Information System \$10k
 - Research Award for Advanced Workstation Software \$10k

REPRESENTATIVE HIGHLIGHTS

- Wrote Firmware ATMEL tiny841 processor.
- Author of the ITU-T V3x509 ext OID 1.3.18.0.2.18.6 (<https://oidref.com/1.3.18.0.2.18.6>)
- Inventor of Group Homomorphism for disconnected and Green non-blockchain for security.
- 25 Years Java experience (RMI, JNI, reflection, JavaMail, Servlets/Tomcat)
- Designed internal Browser Cordova Mobile App dev system simulator called MiddleEarth.
- Designed and started F2F Mobile Identity security project, \$2M staffed investment for \$100M ROI over five years in just one deployment area (Cordova, servlet Certificate Authority)

- Cross -platform mobile device infrastructure Phonegap and Mobile enterprise application solutions.
- Creator of Tivoli's DoJo Energy widgets and coordination of iWidget model for all Tivoli SAPM product direction.
- Developer of TBSM app Blackberry infrastructure and resulting API optimization
- Maker of SmartMap vender agnostic map component for Tivoli Virtual Earth, Google, ESRI.
- Creator of IBM ITM multiplatform subsecond self unzip extraction deployment mechanism for large-scale deployment (10,000) used by key clients including Deutsche Bank.
- Creator of IBM Diaphanous Widget technology, IBM version of yahoo Konfabulator that works on desktop and mobile phones seamlessly; edited IBM micro 1mb J9 JVM for this process.
- Developer of MIDP2.0 widget consultant and toolkit Development for Nokia 6620/9300, Blackberry, Samsung, and J9 IBM – personally architected and wrote RTK technology sandbox.
- Worldwide Architected Websphere Everyplace Client for all handheld devices.

REPRESENTATIVE HIGHLIGHTS, CONTINUED

- Managed up to five IBM R&D staffs worldwide to develop single architecture for Machine Translation product, achieving server fault tolerance system across multiple OS platforms.

TECHNOLOGY EXPERIENCE

AREAS:	Mobile, Internet Collaboration, Cross-Platform Development, Machine Translation, Digital Security (wrote CA for IBM openssl). Laser Technology, Microservices, SOAP, RESTful http, RPC
LANGUAGES & TOOLKITS:	Ada, Android, APL, Blackberry, C/C++, C#, Cobol, Cordova, CSS, Docker, HTML5, HTTP/RFC731, Groovy, iPhone, Java JNI RMI, JavaScript, DoJo jQuery SVG, Lisp, Macro20, MIDP, OSF/Motif, Objective C, Pascal, Phigs, Python, Series1/asm, SNOBOL4, Swift4, WIN32, XDR, XlibX11, 8088asm, Xcode, Python, openCV
PLATFORMS:	Client/Server Technology, Mobile, & Legacy: AIX, UNIX / HP-UX/BSD, Sun Solaris, DOS, MacOSX, SCO, WIN32, Blackberry, MIDP/Nokia, iPhone, Android, OpenSSL, Docker, Kubernetes, Jenkins, Ubuntu, NodeJS, Flask, openCV, AVR, AWS

PROFESSIONAL EXPERIENCE

Arculus/Composecure, Consultant POCs for Arculus CEO Sep 2022 – current

Raleigh, NC

- Design/implement POCs for CEO (Node.js, JS, Java, C#, Python, C, iOSX, Android, DefiPay crypto, Identity proofing). Delivered Certified FIDO2 server. FidoCard 1.09 Delivered. Fido Admin Apps.

Imaginovation Consultant Sep 2021 – Jan 2022

Raleigh, NC

- Docker, Spring boot, security, Intellectual propert. Reconcile DEV environment process.

Secude AG, Assistant Vice President Feb 2020 – May 2020

Raleigh, NC

- Designed/implemented Halocore REST API (Node.js, JS, Java, C#, Python, C).

Consulting, Consultant April 2019 – Dec 2019

Raleigh, NC

- SECUDE AG, Third Bridge Group LTD, Slickedit Incorporated.

IBM SWG Blockchain, STSM
Jan 2017 – April 2019

Research Triangle Park, NC

- Senior Technical Staff Member (RSM) Mobile Identity Project driven/created by my research and inventor patents. <https://www.ibm.com/blogs/blockchain/author/richard-redpath/>
- Wrote scalable Certificate Authority Server openssl/Java see <http://www.richardredpath.com>

IBM Emerging Technology, STSM
Jan 2010 – Dec 2017

Research Triangle Park, NC

- Senior Technical Staff Member (RSM) leading Research and Development (R&D) think tank operations for entire Mobile category across all IBM products.
- Created/Architect of Mobile Identity Project for Emerging Technologies Division (2012) driven by my inventor patents. <https://www.youtube.com/ibmmobileidentity>

Parhelion Incorporated, CTO
DE

Wilmington,

Jan 2010 – Present

- *Co-Founder of Parhelion Inc. Inventor of laser lighting and Parhelion blue laser for startup company. Raised 540k Kickstarter Blue Laser Project. Manufacturing in Asia.* <http://www.stripelight.com>
- *Technology Edison Award 2015, 2017*

IBM Tivoli, STSM
Jan 2008 – Jan 2010

Research Triangle Park, NC

- Senior Technical Staff Member (RSM) think Catalyst for visualization architecture in Service Availability and Performance Management portfolio research team for SWG Energy and Environment Management.
- Advanced to provide consulting and expertise for enhancing IBM Tivoli Monitoring agent deployment and mobile solution access.
- Recruited to drive enhancement of Tivoli innovation for mobile and desktop products.

IBM Pervasive Computing, STSM
Jan 2002 – Jan 2006

Research Triangle Park, NC

- Senior Technical Staff Member (RSM) innovation of Java Embedded products for mobile and desktop and Lotus product futures.
- Senior Technical consultant MIDP2.0 xForms on custom widget development for xForms project;
- design and implementation of MIDP2.0 widget toolkit for sophisticated forms development (Right Size ToolKit / RTK) for low-end mobile phones (102mhz) including Blackberry.
- Senior Technical Staff Member (RSM) Websphere Client Technology Micro-Edition for Enterprise Offering – shaped team and delivery product in accelerated development runway.
- Lotus Mobile Client Architecture Jan 2004 – Jan 2005, directing thought leadership, and steering product from concept to commercial delivery.
- Developed technical strategy and headed design of handheld device for Lotus Workplace product.
- Held technical leadership for all aspects of R&D on this groundbreaking mobile product.
- *Senior Architect (RSM) Designed 2002 – 2004 and sandboxed cross-platform Websphere Everyplace Access (WEA) Client Architecture. Managed technical strategy and design of handheld devices for IBM WEA product; provided technical leadership for worldwide R&D staff and vendor technical implementation alliance. Wrote reference implementation code for platforms including WINCE, Zaurus, and Linux.*

IBM Executive Technical Lead, RSM
Jan 1998 – Jan 2002

Research Triangle Park, NC

- Senior Architect Research Staff Member (RSM) Lead five international R&D teams pioneering development and market traction of server-based machine translation; drove 18-year computational linguistics research to viable competitive product.
- Designed initial architecture and code and planned staff and market strategy.
- Defined single architecture from multiple research projects to achieve server fault tolerance system across multiple OS platforms with highly complex components (Websphere Translation Server, etc.).
- Technical advisor to Fortune 500 clients, government agencies, and technology partners, executing machine translation in real eBusiness environments.
- *Designed and wrote all test scenarios – led fulltime test staff running 438 test beds.*

IBM Emerging Technologies, RSM
Jan 1994 – Jan 1998

Cary, NC, & Research Triangle Park, NC

- Senior Architect Research Staff Member (RSM) Led company's first Java team, creating new development and marketing seed projects.
- Developed company's 1st chat solution (US 5,990,887), 3D virtual business collaboration project, JavaBeans prototype design, blueprint for Websphere Studio. Chat patent
- Designed innovative GUI and resource management solutions used in \$120 million per year product.
- Used early JNDI to enable SUN scalability fix of Java; wrote extensive computational test case scenarios and increasing levels of scaled test cases, enabling SUN fix.
- Authored jRes, Java Resource File and jZip, Java self-extracting install
- Advisor to IBM Executive OpenDoc Liaison and member of cross industry OpenDoc committee.
- Assessed cross-platform data inconsistencies to diagnose significant OpenDoc design flaw.
- Technical consultant for official IBM OpenDoc programming education; designed and led classes
- Advisor to IBM Executive OpenDoc Liaison and member of cross industry OpenDoc committee.
- Assessed cross-platform data inconsistencies to diagnose significant OpenDoc design flaw.
- *Technical consultant for official IBM OpenDoc programming education; designed and led classes*

PREVIOUS EXPERIENCE INCLUDES:

Research Staff Member. WATSON RESEARCH CENTER (Workstation Software 1986-1994)
Research Staff Member Robotics Institute Carnegie-Mellon University, DARPA Terragator vision sonar firmware (cleaned up 3 Mile Island)

EDUCATION

NORTH CAROLINA STATE UNIVERSITY Raleigh, NC
Advanced Studies in Japanese

CARNEGIE-MELLON UNIVERSITY Pittsburgh, PA
Bachelor of Science (BS) – Applied Mathematics in Computer Science

Gemological Institute Of America Carlsbad, CA
Graduate Degree in Diamonds

SELECTED PATENTS HELD

- 10,812,271 Privacy control using unique identifiers associated with sensitive data elements of a group
- 10,742,424 Trusted identity solution using blockchain
- 10,721,077 Using multiple digital identification documents to control information disclosure
- 10,697,625 Illumination apparatus having thermally isolated heat sinks and dual light sources
- 10,559,049 Digital passport country entry stamp
- D888,131 Optical mount lighting projection system enclosure
- 10,382,209 Privacy control using unique identifiers associated with sensitive data elements of a group
- 10,331,755 Transport and administration model for offline browsing

10,291,410 Using multiple digital identification documents to control information disclosure
 10,164,777 Privacy control using unique identifiers associated with sensitive data elements of a group
 10,158,631 Digital identity card management
 10,132,482 Ergonomic torch apparatus
 10,097,354 Privacy control using unique identifiers associated with sensitive data elements of a group
 10,047,929 System and method of generating perceived white light
 9,954,685 Using multiple digital identification documents to control information disclosure
 9,930,017 Issuing, presenting and challenging mobile device identification documents
 9,811,603 Transport and administration model for offline browsing
 9,710,636 Digital identity card management
 9,686,246 Issuing, presenting and challenging mobile device identification documents
 9,683,730 System and method of optimizing white light
 9,660,410 Laser lighting device and application thereof
 9,600,690 Secure access for sensitive digital information
 9,544,150 Using multiple digital identification documents to control information disclosure
 9,361,710 Defining a midlet region space
 9,336,523 Managing a secure transaction
 9,274,679 Care label method for a self service dashboard construction
 9,230,135 Secure access for sensitive digital information
 9,230,133 Secure access for sensitive digital information
 D739,966 Laser lamp
 9,134,791 Service and commerce based cookies and notification
 9,077,770 Mobile web app infrastructure
 9,065,805 Issuing, presenting and challenging mobile device identification documents
 9,059,972 Issuing, presenting and challenging mobile device identification documents
 9,059,852 Validating a user's identity utilizing information embedded in a image file
 8,976,825 Heat sink mount for laser diode
 8,947,234 *Transient state information display in an RFID tag*
 8,845,122 Method for a safe alternative to pyrotechnic projection of light from wardrobe
 D711,561 Specialty lighting projection system enclosure
 D708,963 Specialty lighting packaging enclosure
 8,672,513 Method of using light striping for fire rescue navigation
 8,589,515 Aggregated widget request processing
 8,549,493 Defining a MIDlet region space
 8,543,910 Dog ear-based page turning for electronic documents
 8,527,495 Plug-in parsers for configuring search engine crawler
 8,495,511 Care label method for a self service dashboard construction
 8,482,924 Heat spreader facet plane apparatus
 8,360,612 Laser lighting apparatus and method
 8,170,863 System, method and program product for portlet-based translation of web content
 8,164,420 Transient state information display in an RFID tag having a charge-induced pigment release medium
 7,925,250 Reuse of a mobile device application in a desktop environment
 7,822,831 Method, system and program product for preserving and restoring mobile device user settings
 7,711,802 Method, system, and computer program product for activating non-SMS device using chat protocol
 7,505,449 Queue management for connectivity quality awareness for intelligent device synchronization
 7,437,669 Method and system for dynamic creation of mixed language hypertext markup language content through machine translation
 7,187,389 System and method for simultaneous display of multiple object categories
 7,171,419 Method, apparatus, and program to efficiently serialize objects
 7,089,559 Method, apparatus, and program for chaining server applications
 6,993,472 Method, apparatus, and program for chaining machine translation engines to control error propagation
 6,931,409 Method, apparatus, and program to efficiently serialize objects
 6,836,878 Visual programming from a tree structure
 6,665,600 System and method for acquiring normalized automotive positional settings
 6,530,840 Method and system for an object architecture for a multi-user game lobby and game session
 6,523,170 Technique for creating internet enabled resource files
 6,460,090 Method and system for self-testing controls
 6,418,402 Method and system for utilizing machine translation as input correction
 6,415,249 Method and system for using machine translation with content language specification
 6,347,316 National language proxy file save and incremental cache translation option for world wide web documents
 6,278,969 Method and system for improving machine translation accuracy using translation memory
 6,256,672 Method and system for efficiently notifying an information copy recipient in an electronic mail system
 6,083,279 Platform independent technique for transferring software programs over a network

6,041,343 Method and system for a hybrid peer-server communications structure
6,035,337 Method and system for managing data flow within a collaboration system using proximity
6,006,334 Method and system for authentication over a distributed service to limit password compromise
6,006,267 Method and system for connecting network hosts having different communication protocols
5,990,887 Method and system for efficient network desirable chat feedback over a communication network
5,984,787 Method and system for multi-user game recovery
5,946,289 Method and system for a shipping and playing adapter to enable a reduced size CD
5,940,395 Method and system for information plug-ins for configurable client-server applications
5,920,692 Method and system for a remote notification service for a multi-user server architecture
5,878,425 Intuitive technique for visually creating resource files
5,854,629 Enhanced scrolling technique for context menus in graphical user interfaces
5,752,055 Systems and method for automatically linking parts within compound documents
5,659,676 Systems and methods for creating and refreshing compound documents
5,630,126 Systems and methods for integrating computations into compound documents
5,550,968 Method and system for providing access security to controls in a graphical user interface
5,499,333 *Method and apparatus for at least partially instantiating an object in a compound document*

Consulting Engagements

Arculus/Composecure (NASDAQ:CMPO)
309 Pierce Street
Somerset, NJ 08873
[POC deliverables iOSX/Android/Browser, year contract]

SECUDE International AG
Werftstrasse 4 A
6005 Lucerne
[Security Consulting, \$120/hr project 400hrs]

Third Bridge Group Ltd
The Steward Building
12 Steward Street
London E1 6FQ, United Kingdom
[Java consulting, \$450/hr]

Slickedit Incorporated
3000 Aerial Center Parkway
Morrisville, NC, 27560
[SMTP eMail Services coding consulting, \$250/hr]

Exceptional Patents 100Ms users

5,990,887 Chat Patent used on Mobile phones today. The dot dots, I am typing
7,711,802 Tweeter SMS delivery of messages to Mobile Phones
6,530,840 Game lobby allows users to open a game with their name at a central place.