

## Ray Rischpater, KF6GPE

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### SKILLS

#### Programming & Computing

Fluent in C, C++, C#, Qt, QML, Dart, Flutter, JavaScript, Python.

Working with FreeRTOS on multicore STM32 microcontrollers for realtime audio applications.

Familiar with Haskell, Node, Java, Lisp, Objective C, Scheme, Smalltalk.

Leveraging test-based development within agile development teams.

Using UNIX tools such as awk, bash, grep, sed for automation.

Marking things up with HTML, JSON, LaTeX, Markdown, XML, XSLT.

Using HTTP to build RESTful web services backed by SQL and NoSQL databases.

Developing applications with network and UI components on a variety of mobile platforms.

Playing with machine learning, music, and photography with no real goal in mind.

#### Management

As a people manager, I've led multiple teams over multiple-year efforts to build mobile, geospatial, and ML applications while focusing on delivering results with low turnover and team growth.

As a technical program manager, I've delivered reliable software products on time and within budget on both professional services engagements and internal products. I've managed all aspects of the software development cycle from requirements analysis through sustaining engineering, including marketing and technical documentation.

As a leader for volunteer organizations, I bring my Quaker faith and understanding of Quaker business practices to Quaker and like-minded nonprofits.

#### Writing & Editing

I've written a number of academic papers, articles, and books on computing, as well as numerous white papers during my tenure at AllPen Software, Rocket Mobile, Nokia, and Microsoft.

I've served as a technical editor for technical books and internal technical documentation.

### EMPLOYMENT

#### Software Engineer, 1010music 8/21-present

Develop embedded firmware for 1010music's line of electronic samplers, mixers, and synthesizers on STM32 microcontrollers using FreeRTOS. Focus on user interface design for multicore event-driven applications from UI controls through the product audio engine.

#### Technical Program Manager, Google 1/17-7/21

Guided processes behind the delivery of Flutter, the Google-sponsored open-source UI toolkit for mobile, web, and desktop applications. Previously responsible for delivering Google Play Services on Android to two billion Android devices reliably and regularly.

#### Software Engineering Manager, Uber 8/15-1/17

As part of a sale of our business unit from Microsoft to Uber, led two teams building machine learning software pipelines and tools to improve the quality of Uber's mapping products. Consistently shipped software on time and in budget while doubling the size of both teams.

#### Software Engineering Manager, Microsoft 9/12-8/15

Worked on next-generation mapping and visualization technologies as the developer lead for the Streetside feature of the Bing 3D Maps Preview application and confidential applications of machine learning to mapping products.

**Senior Software Engineer**, Nokia 12/08-9/12

Worked as a research engineer investigating next-generation user interface concepts for future wireless devices. Collaborated with US and offshore employees to transfer prototypes to shipping products.

**Chief Architect**, Rocket Mobile (later Buongiorno) 11/01-12/08

Facilitated all aspects of product and custom software development for applications running on Qualcomm BREW and Java ME. Products launched include SMS and MMS messaging on the Motorola V3C from Verizon Wireless, wallpaper and ringtone applications with Verizon Wireless and Sony BMG, and extensive consulting with Verizon, Samsung, Sharp, and Qualcomm. Materially contributed to the sale of Rocket Mobile to Buongiorno.

**Independent Consultant**, 11/99-11/01

Consulted on the development of a variety of handheld software products while writing four books on mobile and personal computing.

**Director of Software Development**, AllPen Software (later Spyglass) 6/94-10/99

Beginning as an individual contributor, worked and later led custom software development for vertical market clients, eventually promoted to Director of Software Development after Spyglass acquired Rocket Mobile. With Todd Courtois, wrote NetHopper one of the first mobile web browsers running on the Apple Newton, and worked extensively on web browsers for Magic Cap, Palm OS, and several embedded platforms. Wrote one of the first mobile web servers running on the Newton MessagePad. Materially contributed to the sale of AllPen Software to Spyglass.

**Software Engineer**, Sun Microsystems Federal 6/91-9/92 & 9/93-6/94

Beginning as an intern, worked as a quality engineer on tools test porting, and eventual maintenance of a network services daemon running on SunOS CMW.

## EDUCATION

Bethany Theological Seminary, Certificate in Intercontextual Bible Interpretation, 5/2024.

Earlham School of Religion, M.A. Theopoetics and Writing, 5/2023.

University of California at Santa Cruz, B.S., Pure and Applied Mathematics, 1993.

## PROFESSIONAL AFFILIATIONS

American Academy of Religion

Association of Computing Machinery

American Radio Relay League

Institute of Electrical and Electronic Engineers

## WRITING: BOOKS

Ray Rischpater. *Mastering Qt, Third Edition*, Packt, est. pub fall 2023.

Ray Rischpater. *JavaScript JSON Cookbook*, Packt, 2015.

Carmen Au and Ray Rischpater. *Microsoft Mapping: Geospatial Development with Bing Maps and C#, Second Edition*, APress, 2015.

Ray Rischpater. *Application Development with Qt Creator, Second Edition*, Packt, 2014.

Ray Rischpater. *Application Development with Qt Creator*, Packt, 2013.

Ray Rischpater and Carmen Au. *Microsoft Mapping: Geospatial Development with Bing Maps and C#, APress*, 2013.

Ray Rischpater and Dan Zucker. *Beginning Nokia Application Development*, APress, 2010.

Ray Rischpater. *Beginning Java ME Platform (From Novice to Professional)*, APress, 2008.

Ray Rischpater. *eBay Application Development*, APress, 2004.

Ray Rischpater. *Software Development for the QUALCOMM BREW Platform*. APress, 2003.

Ray Rischpater. *Wireless Web Development, Second Edition*, APress, 2002.

Ray Rischpater. *Wireless Web Development with PHP and WAP*, APress, 2001.

Ray Rischpater. *Internet Appliances: A Wiley Tech Brief*, John Wiley & Sons, 2001.

Steve Mann and Ray Rischpater. *Advanced Palm Programming*, John Wiley & Sons, 2000.

Ray Rischpater. *Palm Enterprise Applications: A Wiley Tech Brief*, John Wiley & Sons, 2000.

Ray Rischpater. *Wireless Web Development*, APress, 2000.

## WRITING: ARTICLES & PAPERS

Daniel Zucker, Carmen Au, Ray Rischpater, Chris Mockus and Jason Wither. "Tagger: Bringing Real World Graffiti Social Interaction to Virtual San Francisco." *SocialCom 2012*, (2012).

Jason Wither, Carmen Au, Raymond Rischpater, and Radek Grzeszczuk. "Moving Beyond the Map: Automated Landmark Based Pedestrian Guidance Using Street Level Panoramas." *MobileHCI 2013*, 2013.

Rischpater, Ray. "Screen Rotation in Qualcomm BREW." *Developer*, 3/08

Rischpater, Ray. "Memory-Mapped Files for Qualcomm BREW." *Developer*, 1/08

Rischpater, Ray. "Back to Basics: Manage Collections with a Custom Dictionary." *DevX*, 10/07

Rischpater, Ray. "Back to Basics: How to Manage Collections in Your Legacy BREW Applications." *DevX*, 10/07

Rischpater, Ray. "Interapplication Communication with Qualcomm BREW." *DevX*, 7/07

Rischpater, Ray. "Rendering HTML Using the BREW uiOne Toolkit." *DevX*, 4/07

Rischpater, Ray. "Scaling Images Using Qualcomm BREW." *DevX*, 4/07

Rischpater, Ray. "Performing Graphics Operations with BREW Bitmaps." *Developer*,3/07

Rischpater, Ray. "Extending Event Handling with the BREW UI Toolkit." *Developer*,2/07

Rischpater, Ray. "Introducing Carbide for Nokia Series 60 Development." *DevX*, 11/06

- Rischpater, Ray. "WinARM for Qualcomm BREW." *Developer*, 10/06
- Rischpater, Ray. "3D Graphics Made Easier with OpenGL ES for BREW, Part 2." *DevX*, 10/06
- Rischpater, Ray. "BREW uiOne for the Masses." *Developer*, 9/06
- Rischpater, Ray. "Scheme for Client-Side Scripting in Mobile Web Browsing." *Scheme and Functional Programming Workshop at ICFP 2006*
- Rischpater, Ray. "3D Graphics Made Easier with OpenGL ES for BREW." *DevX*, 9/06
- Rischpater, Ray. "Adding New Transaction Engines to QUALCOMM BREW's IWeb" *Developer*, 8/06
- Rischpater, Ray. "Cooperative Multithreading in BREW with IThread." *DevX*, 8/06
- Rischpater, Ray. "Common Challenges to Porting Existing Code in C to BREW." *DevX*, 7/06
- Rischpater, Ray. "Three Tricks for Faster Handset Ports with Qualcomm BREW." *Developer*, 6/06
- Rischpater, Ray. "Reaching the Mobile Market with SMS.ac and xPML." *DevX*, 6/06
- Rischpater, Ray. "Capturing Audio on BREW Handsets." *DevX*, 5/06
- Rischpater, Ray. "Running J2ME Applications on Palm-powered Devices." *DevX*, 4/06
- Rischpater, Ray. "The 10 Biggest Mistakes Developers Make with Qualcomm BREW." *Developer*, 3/06
- Rischpater, Ray. "Playing Multimedia Using QUALCOMM BREW's IMEDIA." *DevX*, 3/06
- Rischpater, Ray. "Camera-enable Your Applications with BREW's ICamera APIs." *DevX*, 1/06
- Rischpater, Ray. "Make Location-Aware Apps Part of the Grind with BREW." *DevX*, 11/05
- Rischpater, Ray. "BREW's Short Messaging Service Interfaces: Which to Use and Why." *Developer*, 10/05
- Rischpater, Ray, Aaron Wood, and Aleatha Parker-Wood. "Cross-platform Builds Made Easy: From Microsoft Visual Studio to ARMCC Using Ant and XSL." *DevX*, 7/05
- Rischpater, Ray. "Creating Multimodal Applications Using the IBM Multimodal Toolkit." *DevX*, 6/05
- Rischpater, Ray. "Simplifying Access to BREW Databases." *Developer*, 5/05
- Rischpater, Ray. "Creating Voice Applications Using VoiceXML and the IBM Voice Toolkit." *DevX*, 4/05
- Rischpater, Ray. "Writing BREW Extensions." *Developer*, 4/05
- Rischpater, Ray. "Create Mobile Applications with IBM Forms for Mobile Devices." *DevX*, 4/05
- Rischpater, Ray. "Build Better Mobile Uis with a New BREW Framework." Parts I & II, *DevX*, 9/04 & 10/04
- Rischpater, Ray. "Implementing a BREW Singleton." *DevX*, 8/04
- Rischpater, Ray. "Easing Ebooks into the Enterprise." *PalmPower Enterprise Edition*

- Rischpater, Ray. "The Xircom Wireless LAN Modem for Palm m500 Series Review." *PalmPower Enterprise Edition*
- Rischpater, Ray. "A Review of the MyPalm MyInfo." *PalmPower*
- Rischpater, Ray. "A Look at the MyPalm Portal." *PalmPower*
- Rischpater, Ray. "Xircom Wireless SpringPort Module Review." *PalmPower*
- Rischpater, Ray. "An Introduction to GPS." *Handheld Systems*, 1/99
- Rischpater, Ray. "Two More Java Books." *Handheld Systems*, 1/99
- Rischpater, Ray. "Java Communications." *Handheld Systems*, 1/99
- Rischpater, Ray. "Palm Packet with the Palm Pilot." *CQ VHF*, 12/99.
- Rischpater, Ray. "ARES and the Internet." *CQ VHF*, 12/98.
- Rischpater, Ray, and Nolan, Alissa. "Cell Phone Systems." *Handheld Systems*, 11/98.
- Rischpater, Ray. "Java User Interfaces with Swing." *Handheld Systems*, 11/98.
- Rischpater, Ray. "Jini Background." *Handheld Systems*, 11/98.
- Rischpater, Ray. "Java Book Roundup." *Handheld Systems*, 11/98.
- Rischpater, Ray. "The Programmer's Attic." *Handheld Systems*, column from 9/98-1/99.
- Rischpater, Ray. "Psion Background." *Handheld Systems*, 9/98.
- Rischpater, Ray. "Casio E-10 First Impressions." *Handheld Systems*, 9/98.
- Rischpater, Ray. "The Java AWT." *Handheld Systems*, 9/98.
- Rischpater, Ray. "Narrowing the Gap: Prism, Handheld Devices, and the Internet." *Handheld Systems*, 7/98.
- Rischpater, Ray. "An Introduction to Java, Pt. 2." *Handheld Systems*, 7/98.
- Rischpater, Ray. "An Introduction to Java, Pt. 1." *Handheld Systems*, 5/98.
- Rischpater, Ray. "Good User Interface Design." *Handheld Systems*, 3/98.
- Rischpater, Ray. "The Case of the Missing Button Bar." *Handheld Systems*, 1/98.
- Rischpater, Ray. "Using the Newton C++ Tools." *Handheld Systems*, 1/98.
- Rischpater, Ray. "A First Look at PersonalJava." *Handheld Systems*, 11/97.
- Rischpater, Ray. "Binary Data and Newton Applications." *Handheld Systems*, 11/97.
- Rischpater, Ray. "HandStamp for PalmPilot." *Handheld Systems*, 9/97.
- Rischpater, Ray. "Get Your Data Using NetHopper." *Handheld Systems*, 9/97.
- Rischpater, Ray. "The How's and Why's of a Handheld Java." *Handheld Systems*, 7/97.
- Rischpater, Ray. "The NetHopper APIs." *Handheld Systems*, 5/97.

- Rischpater, Ray. "TCP/IP With the Palm OS." *Handheld Systems*, 5/97.
- Rischpater, Ray. "Cooking with Rosemary: A Magic Cap 2.0 Overview." *Handheld Systems*, 3/97.
- Rischpater, Ray. "Work Smarter, Not Harder: Newton Debugging Tricks & Tips." *Handheld Systems*, 3/97.
- Rischpater, Ray. "nHTTPd: A Newton Web Server." *develop*, 3/97.
- Rischpater, Ray. "Seeing in Color: The Newton Greyscale APIs." *Handheld Systems*, 1/97.
- Rischpater, Ray. "Building Quality Applications." *PDA Developers*, 11/96.
- Rischpater, Ray. "The New Newton OS." *PDA Developers*, 11/96.
- Rischpater, Ray. "Introducing the Newton Internet Enabler." *PDA Developers*, 9/96.
- Rischpater, Ray. "ATSlat: A Shared Whiteboard For Newton." *PDA Developers*, 7/96.
- Rischpater, Ray. "Lost? GPS Can Help." *PDA Developers*, 5/96.
- Rischpater, Ray. "Magic Cap's TCP/IP Stack." *PDA Developers*, 3/96.
- Rischpater, Ray. "Writing Wireless Applications." *PDA Developers*, 1/96.
- Rischpater, Ray. "Popular PDA Communications: A Quick Tour." Part 2. *PDA Developers*, 11/95.
- Rischpater, Ray. "Popular PDA Communications: A Quick Tour." Part 1. *PDA Developers*, 9/95.
- Courtois, Todd, and Rischpater, Ray. "Portal: A PDA-to-World Wide-Web Interface." *PDA Developers*, 1/95.

In addition, I have been the technical reviewer for several books from Addison-Wesley on software development for Android, including various editions of *Android Wireless Development* and *Learning Android Application Programming for the Kindle Fire: A Hands-On Guide to Building Your First Android Application*.

## **VOLUNTEER SERVICE**

I am presently serving on the board of Friends House Moscow Support Association (effective February 2021), a 501(c)3 raising funds for Friends House Moscow (<https://friendshousemoscow.org/>); I have been a board member since 2018, and during that time have served as the clerk of the board for two years. In September of 2020, I was appointed to serve on its international board ([https://friendshousemoscow.org](https://friendshousemoscow.org/)).

Since 2021, I have served as a member of Pacific Yearly Meeting's Faith and Practice Revision Committee, the committee charged with revising Pacific Yearly Meeting (Quakers) book of discipline, *Faith and Practice*.

In the past, I have served on various committees in my Quaker meeting and was the clerk of the Ben Lomond Quaker Center Association, the board for the non-profit Ben Lomond Quaker Center (<http://quakercenter.org>; board service from '10-spring '14, clerk service from spring '12-spring '14). More recently, I served as the treasurer (1/18 through 12/18) of Rebuilding Alliance (<http://rebuildingalliance.org>), a 501(c)3 working to rebuild war-torn communities in Palestine.

## **INTERESTS**

I hold an FCC Amateur Radio License as KF6GPE (Amateur Extra) and regularly provide communications for emergency service and public events as a public service. Other interests include

electronic music (composition, sound design, and history) hiking, photography, and the history of the Ancient Near East, computing and computing languages (not connected for the most part!).