

MICHAEL PORTUESI

San Francisco, CA 94107 • mportuesi@yahoo.com

PROFESSIONAL SUMMARY

- Extensive experience developing high-volume Java server-side web applications.
- Additional experience in client-side web technologies, including AJAX and Flex.
- 10+ years experience developing C/C++ desktop and server applications for: video searching/indexing, digital media (image, audio and video) capture, creation, and processing.
- Seasoned software developer with full-cycle development knowledge in both product development and consulting/professional service roles, and commitment to best practices.
- Self-starter, with excellent organizational and planning skills.
- Excellent communicator both written and verbal. Extensive public speaking and technical training experience.

SKILLS

- Programming languages: Java 6, ActionScript 3, C, C++, Perl. Familiar with Python.
- Server-side web: JSP, Servlets, JSTL, Struts 1 and 2, Spring IoC, PicoContainer, Hibernate, Velocity, Sitemesh, JDBC, SQL, JUnit, JMock, DbUnit, Canoo Webtest.
- Client-side web: Adobe Flex 3, HTML/XHTML, CSS2, JavaScript, DHTML, AJAX, PureMVC.
- Databases: Oracle, MySQL.
- Servers: Tomcat 6, Sun Glassfish, WebLogic 8, Apache HTTP Server 2.
- Tools: Eclipse 3.4, Adobe Flex Builder 3, IntelliJ IDEA, CVS, Subversion 1.5, TortoiseSVN, CruiseControl, ScrumWorks Pro, Maven 2, Ant 1.5, JIRA, Bugzilla, Firebug, Plone, valgrind.
- Operating Systems: Linux, Mac OS X, Windows (NT/2000/XP).
- Expert at development for the TiVo DVR platform using the TiVo HME SDK.
- 118n experience using IBM's Components for Unicode framework.
- Digital media applications development with Windows Media, Real, QuickTime and SGI digital media APIs.

WORK EXPERIENCE

Magley and Associates, October 2008 - Present

Contract Software Developer. Client: **Nokia Mobile Phones**, Point & Find business unit.

- Developed a web application to display and edit location-based data using ActionScript 3, Flex 3, Flex Builder 3, PureMVC, JavaScript, Nokia Maps API and a third-party geo-spatial API. Set up WAMP environment, integrated with back-end PHP web application.
- Maintained and extended a image recognition benchmark suite in C and Perl, using Windows/Cygwin and Eclipse. Refactored C code to group image recognition algorithms into object-oriented modules. Analyzed C memory usage in Linux with valgrind, fixed memory leaks. Wrote makefiles.
- Evaluated precision and accuracy of cellphone GPS devices in an urban environment. Designed experimental procedure, gathered data from cellphone and dedicated GPS units. Analyzed data with Excel, produced statistical summary and report of findings.
- Agile development coach within Nokia Point & Find business unit. Set up and administered ScrumWorks Pro for SCRUM project development.
- Consultant in build system development, migration and SCM strategies. Developed and presented technical presentations on ScrumWorks and Subversion to internal developers.

DHAP Digital, Inc. San Francisco, CA December 2004 - October 2008

Senior Software Engineer

- Developer for a server-side web application and portal website for the BD Live Blu-ray disc platform. Supports premium content access via Internet-enabled Blu-ray players. Technologies used: Java 6, Tomcat 6, Sun Glassfish Server, Struts 2, JSP, Hibernate 3, Spring IoC 2.5, Sitemesh, Oracle, MySQL, Maven 2, CruiseControl, Subversion, Eclipse 3.3, JUnit, JMock and Canoo WebTest.
- Lead developer for several releases of a consumer-facing web application for a top-three auto manufacturer. Consumers may customize car configurations and contact dealers. It services the most hits on the company's website, integrates with several third-party web applications and web services, and has been in production for over four years. Technologies used: Java 1.4, BEA WebLogic 8, Struts 1, JSP, JSTL, Velocity, AJAX, XMLBeans, PicoContainer, Oracle, CVS and IntelliJ IDEA.
- Lead developer for several releases of an internal web application to administer a consumer-facing auto configuration tool, which has also been in production for over four years. Developed technical documentation and specification documents for internal project managers and clients.
- Customized an open-source image processing package in C, on 64-bit Solaris platform. The software produced visual effects on multi-gigabyte images for a website launched by a top-three auto manufacturer. Developed scripts with Perl and ImageMagick to automate processing. The client was extremely impressed, leading DHAP to a major development contract.
- Lead developer for an interactive automotive shopping application on the TiVo DVR platform, using the TiVo HME SDK and Java. Consumers may build custom car configurations and contact a dealership via a TiVo DVR. Project success led to a partnership and additional development opportunities with TiVo.
- Developer for a web application to configure an embedded network router. Developed a CGI application in Linux and C++ to connect web interface with router functions. Developed an IP subnet calculator using DHTML.

Michael Portuesi Software Development Solutions, San Francisco, CA June 2004 - November 2004. Contract developer. Client: Conwest Resources, Inc.

- Developed XML-based web service to integrate a third-party payment processor, using Java Servlets and JAXB APIs. This web service processes more than \$50,000 in transactions per week. Migrated entire codebase for three public-facing websites into Subversion. Implemented Windows Media streaming for Mac OS X-based customers using JSP, supporting both IE and Firefox.

Virage, Inc. (now Autonomy plc) San Mateo, CA 1997 - 2003

Senior Software Engineer, Server Software Group

- Developed installation and configuration tools for VS Webcasting 3.0, a Java web application for corporate webcasts. Designed and implemented servlets and product installers for setup/configuration. Reduced support call volume and eased resolution.
- Researched SOAP toolkits for Java/J2EE platform. Integrated Apache Axis SOAP toolkit into Virage server web application. Specified Java APIs to be exported as web services.
- Developer for VS Publishing, using Perl/CGI and the Virage search server platform, for Solaris and Windows. VS Publishing assembles video playlists and publishes with ad insertion and access controls.

Senior Software Engineer, SmartEncode Software Group

- As part of a team, developed and shipped VideoLogger from releases 1.0 through 4.5. VideoLogger is a C++ Windows application which analyzes video and builds a searchable index in real time. CNN used this product to manage over 40 incoming news feeds for Headline News.

- Technical lead for the VideoLogger SDK, in C and C++, for Solaris and Windows. Supervised specification. Implemented portions of SDK. Maintained backwards compatibility with previous releases. Addressed QA issues. Mentored junior engineers. Delivered technical training to third-party developers.
- Designed and implemented two VideoLogger video import components. One used the RealNetworks API, the other Microsoft Windows Media. This work enabled Virage to establish a business partnership with RealNetworks.
- Replaced Virage's file format for video metadata (VDF) with an all new design and implementation. Used in all Virage products. Backwards compatibility enabled decoupling of application and platform releases, saving costs.
- Integrated IBM's International Components for Unicode (ICU) software with the Virage codebase. Enabled sales of over \$3 million to Europe and Asia.
- Ported Virage SDK to Linux platform. Developed a user-space video capture library using the VideoForLinux API. This work led to a partnership with SRI International.

Silicon Graphics Computer Systems (SGI) Mountain View, CA 1989 - 1997

Software Engineer, Media Production Applications Group

- Designed, developed and shipped Media Recorder, an application for recording movie, audio, and still image files. It was used by TiVo, Lucasfilm, and the Monterey Bay Aquarium.
- Designed and implemented a C++ framework to capture audio, video and still images. This software was the first on SGI to provide full-rate synchronized audio and video capture, and the first on any platform to create QuickTime files greater than 2 gigabytes in size. Apple referenced this work for QuickTime.
- Developed and shipped Movie Library, a C-based API for digital video. Created specification for a playback API. Designed and implemented a realtime, multithreaded movie playback engine, supporting asynchronous playback. Customers included Oracle, Adobe, Avid and Discreet Logic.
- Developed and shipped Image Works, an image enhancement utility, using C++. Designed user interface and wrote all online user documentation. The application served as a demo of the SGI ImageVision SDK, and as a C++ coding example for junior engineers.
- Co-authored the *Lurker's Guide to Video for Silicon Graphics Systems*, a public document describing undocumented features of SGI video products.

PATENTS

Co-Inventor on U.S. Patents 7,295,752, 7,093,191, 6,963,906, 6,567,980, 6,463,444, and 6,360,234. Sole inventor on patents 6,499,057, 5,987,509 and 5,774,666.

PUBLICATIONS

- "Tune up Your Telescope." *Night Sky* magazine, March/April 2005.
<http://www.skyandtelescope.com/howto/visualobserving/26149754.html>
- San Francisco Sidewalk Astronomers website (<http://www.sfsidewalkastronomers.org>). Designed sitemap and wrote all site content. Used CMS Made Simple, HTML and CSS2.

EDUCATION

Carnegie Mellon University, Pittsburgh, PA - B.S. in Applied Mathematics/Computer Science.

OTHER EXPERIENCE

- Volunteer speaker for the San Francisco Sidewalk Astronomers. Presented public lectures for audiences ranging from pre-schoolers to senior citizens. Topics have included Pluto's planetary status, the Milky Way Galaxy, the lives of stars and nebulae, solar storms and sunspots, Mars, Saturn, lunar history and geology.