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## Marek Kedzierski

<b>Overview</b>	Season developer with 10+ years experience in application development. I have spent the past 3 years focused on Android development, beginning with my Google Play Store application 'VirtualBox Manager' which has 12,000 installs with 4+ star rating.
<b>Education</b>	2001-2005 <b>University of Texas</b> Austin, TX <i>B.A. Computer Sciences</i> <ul style="list-style-type: none"><li>Completed CS370 Undergraduate Research &amp; CS379H Honors Research Thesis with A's.</li></ul>
<b>Android Open Source Development</b>	<i>VirtualBox Manager Application</i> <ul style="list-style-type: none"><li>4.1 star rating (30,000-&gt;50,000 installs) on <a href="#">Android Market</a></li><li>Control Oracle VirtualBox installation remotely using Webservice API</li><li>Exposes complete API, i.e. Start/Stop, Snapshots, State saving</li><li>Display Virtual Machine details and log files</li><li>Real-Time CPU/Memory metric graphs</li><li>Source code available at GitHub <a href="https://github.com/kedzie/VBoxManager">https://github.com/kedzie/VBoxManager</a></li></ul>
	<i>Android Support v4 with NineOldAndroids</i> <ul style="list-style-type: none"><li>Allow Object Animators for Fragment Transitions</li><li>Use PageTransformers in pre-HoneyComb</li><li>Source available <a href="http://www.github.com/kedzie/Support_v4_NineOldAndroids">http://www.github.com/kedzie/Support_v4_NineOldAndroids</a></li></ul>
	<i>WorldWind Android</i> <ul style="list-style-type: none"><li>Ported core functionality from WorldWind Java SDK</li><li>Load 3D models using Rajawali integration</li><li>Surface shapes framework</li><li>Multitouch gesture improvements, zoom/rotate</li><li>Performance statistics framework</li><li>Clocked rendering</li><li>ETC1 Texture compression, to-disk and on-the-fly compression</li><li>Animation framework</li><li>Work available at <a href="http://www.github.com/kedzie/WorldWind_Android">http://www.github.com/kedzie/WorldWind_Android</a></li><li>Official site <a href="http://www.github.com/TrilogisIT/WorldWind_Android">http://www.github.com/TrilogisIT/WorldWind_Android</a></li></ul>
	<i>Other Contributions</i> <ul style="list-style-type: none"><li>maven-android-plugin</li><li>Apache Thrift</li><li>Draggable Drawers</li><li>Rajawali</li></ul>
<b>Professional experience</b>	02/13-Present <b>BTS Consulting</b> Burr Ridge, IL <i>Android Developer</i> <ul style="list-style-type: none"><li>Android development for custom tablet with OS modifications to support custom functionality.</li><li>OS development to support custom SystemUI (status bar, navigation bar), window z-order, touch &amp; drag event dispatching, keyboard display.</li><li>Developing of custom views to match UI/UX specs, AIDL services for IPC, content providers.</li></ul>

	09/12-2/13 <b>Yotimbe</b> <i>Android Developer</i> San Diego, CA <ul style="list-style-type: none"> <li>Built application with RESTful backend services</li> <li>Integrations with Facebook, Twitter, Youtube &amp; PayPal</li> <li>Implemented Android recommended design/navigation patterns, including fragment layouts for tablets</li> <li>Single APK with backwards compatibility using Google support libraries and ActionBarSherlock</li> </ul>
	04/12-8/12 <b>Chicago Tribune</b> <i>Senior Android Developer</i> Chicago, IL <ul style="list-style-type: none"> <li>Developed android application for viewing news media</li> <li>Used Honeycomb, ICS &amp; Support APIs.</li> </ul>
	06/11-2/12 <b>HS2 Solutions</b> <i>Web Developer &amp; Architect</i> Chicago, IL <ul style="list-style-type: none"> <li>Implemented an insurance claim processing system based on (user-editable) business rules using Jboss Rules &amp; Guvnor</li> <li><i>Lead an effort supporting effective &amp; efficient rule authoring by business users. including:</i></li> <li>Separate object model for rule execution, optimized for rule authoring, with type conversion handled by set of technical rules.</li> <li>robustly designed DSL and rule templates</li> <li>Converted existing rule spreadsheets to Decision Tables and Guvnore rule templates</li> <li>Used Gitorious repository as back-end storage for Guvnor by developing custom git modeshape connector</li> </ul>
	12/10-06/11 <b>University of Chicago</b> <i>Java/Python Engineer (workflow specialist)</i> Chicago, IL <ul style="list-style-type: none"> <li>Advised team on possible value &amp; cost of integrating existing project with a business process/workflow engine</li> <li>Developed proof-of-concepts of various workflow-related solutions</li> <li>Created web applications with Python + Pylon (Mako templates)</li> </ul>
	2/10-12/10 <b>MK Consulting</b> <i>President/Lead Developer</i> Chicago, IL <ul style="list-style-type: none"> <li>SOA/SaaS/Cloud architecture specialist. Designed &amp; developed SA applications, services &amp; ESB infrastructure using Java EE.</li> <li>Finding my own clients, requirement gathering and full lifecycle development. focus on solving business problems rather than 8 hours.</li> <li>Leveraged Jboss jBpm 4.x to automated business processes regarding communications between potential clients &amp; vendors for internet marketing applications.</li> <li>Developed user interfaces using Google Web Toolkit (GWT), PHP &amp; Javascript. RESTful web services. EJB backend with JPA/Hibernate. SOLR search capability.</li> </ul>
	8/09-12/09 <b>NAVTEQ</b> <i>J2EE Senior Architect</i> Chicago, IL <ul style="list-style-type: none"> <li>Developed extensions to JBoss jBPM to support object &amp; role based authorization.</li> <li>Designed an integration layer which allowed jBPM to be used with any implementation of the java security specifications.</li> </ul>
	11/08-5/09 <b>MIT Lincoln Laboratory</b> Boston, MA

	<p><i>Software Engineer</i></p> <ul style="list-style-type: none"> <li>• SOA/SaaS architecture specialist. Designed &amp; developed SA applications, services &amp; ESB infrastructure using Java EE.</li> <li>• Integrated applications, including those developed in C++ &amp; Matlab, developed by other laboratory groups into a SOA architecture. Clients discovered services from UDDI registry.</li> <li>• Developed 3D GIS visualization client using GeoTools &amp; OpenGL.</li> <li>• Applications communicated via Cursor-on-Target &amp; CRD schemas for Situational Awareness &amp; route planning. Integrated with Falconview.</li> <li>• Developed Proof-of-Concepts and gave demonstrations</li> </ul>
	<p>7/07-7/08 <b>Pervasive Software, Inc.</b> Austin, TX  <i>J2EE Software Architect</i></p> <ul style="list-style-type: none"> <li>• Developed an enterprise platform (SaaS/SOA Architecture) which allowed the company to expose their core technology engine to thousands of users with a SaaS (Software As A Service) business model and to orchestrate business processes with BPEL.</li> <li>• Developed an Enterprise Service Bus (ESB) which leveraged existing proprietary technology while adding features such as High Availability, scalability, multi-tenancy, BPEL orchestration, JMX/SMNP monitoring, and content management.</li> <li>• Lead the entire development life-cycle from requirements and release; including the design/implementation of a semi-formal iterative process.</li> <li>• Implemented the application using J2EE 5 technologies including JBoss 4.2 AS, EJB 3, JAX-WS, JMX. Also used JBoss jBPM, Hibernate, BPEL (Apache ODE), JMX, JSF, and Spring. Developed development tools as Eclipse Plugins.</li> </ul>
	<p>8/05-6/07 <b>KiTS</b> Round Rock, TX  <i>Java Developer</i></p> <ul style="list-style-type: none"> <li>• J2EE Development of a SOA architecture using IBM WebSphere and Oracle. Daily experience developing Web Services, EJBs, Hibernate, ESB, JSP, JMS, JMX, Java WebStart, JBoss AOP, and JBoss Rules. Implemented ESB using WebSphere ND, WebSphere Process Server, and WebSphere MQ.</li> <li>• Developed POC for C2(Command &amp; Control)/SA (Situational Awareness) application which utilized 200+ Gigabytes of GIS data in various formats (DTED 1&amp;2, CADRD (1:25k, 1:50k, 1:100k, 1:1Mil, 1:5Mil), CID (1M, 5M), GeoTIFF(1:1M). Used OpenMAP framework to load file formats. Developed custom 3D rendering with OpenGL which dynamically loaded map data based on the visible area in the current viewpoint. Optimal map scales were chosen based on viewpoint, data availability, and user override preferences. Multiple scales of satellite/map imagery could be layered onto optimal level of DTED elevation data. Screen shots available on website.</li> <li>• As a IBM Business Partner, KiTS adopted Rational Unified Process with ClearCase, ClearQuest and Rational Software Development Platform. Used model based development with UML.</li> <li>• Co-designed &amp; implemented business logic &amp; validation rules using Fair Isaac Blaze Advisor before converting to JBoss Rules after licensing issues. Both were integrated with the application code non-intrusively via JBoss Aspect Oriented Programming.</li> <li>• Took on major role in early design/development of J2EE/SOA data initialization software, for US Army, deployed on IBM WebSphere</li> </ul>

	<p>Application Server.</p> <ul style="list-style-type: none"> <li>Designed &amp; Implemented persistence layer using JBoss Hibernate technology with an Oracle 10g Database. Developed user interface using Swing and JSP.</li> <li>Implemented client-server communications using JAX-RPC webservice delegate/facade pattern. Delivered client to user via Java WebStart.</li> <li>Was brought on as a full-time salary employee by KITS after six month minimum period; supported successful delivery of production application to the Army.</li> </ul>
	<p>8/97-12/00 (4 year gap is college) <b>Motorola</b> Schaumburg, IL  <b>C++ Programmer</b></p> <ul style="list-style-type: none"> <li>Started working at the age of 15. Continued until I went to study at the University of Texas at Austin.</li> <li>Took on major role in the development of a virtual reality training application for use in Motorola factories.</li> <li>Developed interactive 3D environment using Direct3D and Microsoft Visual C++.</li> </ul>
<b>Research</b>	<p>Summer 2007 <b>Independent Research</b> Austin, TX  <i>Independent Research: Polyphonic Transcription VST Plugin</i></p> <ul style="list-style-type: none"> <li>Developed Virtual Studio Technology Plugin implementation of the polyphonic music transcription algorithm described below. Optimized algorithms for production use. Used C++. (Code available on request of potential employer)</li> </ul>
	<p>Summer 2005 <b>University of Texas</b> Austin, TX  <i>Polyphonic Transcription: Parallel Implementation</i></p> <ul style="list-style-type: none"> <li>Developed a parallel processing implementation of polyphonic music transcription algorithm(described in next section). Tested on supercomputers with thousands of processors. Wrote a paper describing results and lessons learned.</li> </ul>
	<p>Spring 2005 <b>University of Texas</b> Austin, TX  <i>CS379H Honors Thesis: Polyphonic Transcription</i></p> <ul style="list-style-type: none"> <li>Continued previous research by implementing polyphonic music transcription using Bayesian statistical modeling (Switching Kalman Filter Model).</li> <li>Developed effective application under Matlab environment; included mono/polyphonic transcription as well as instrument-specific EM parameter learning algorithm.</li> <li>Performed research independently, which was later evaluated by Professor Novak as well as former Chairmen of Astronomy, Bill Jefferys. Received an A for the course.</li> </ul>
	<p>Spring 2004 <b>University of Texas</b> Austin, TX  <i>CS370 Undergraduate Research: Monophonic music transcription</i></p> <ul style="list-style-type: none"> <li>Developed software which detected the pitch of real-time audio input and converted it to MIDI messages. Earned an A for independent research supervised by Prof. Gordon Novak.</li> <li>Implemented using DFT based fundamental frequency detection; as well as an original note onset/offset detection algorithm.</li> </ul>
<b>Security Clearance</b>	Active DoD SECRET security clearance.

<b>Technical Skills</b>	<p><b>Languages:</b> Java/JEE, Python, C, C++, HTML, CSS, Javascript, PL/SQL, MATLAB</p> <p><b>Mobile:</b> Android</p> <p><b>Java/J2EE 5:</b> Web Services (JAX-WS, SOAP, JAX-RPC, JAXB, UDDI), JAXR, JPA, JMX, JMS, BPEL, Ant, Maven, Subversion, CVS, junit, JSF, Spring, Quartz, Eclipse/SWT, JNI</p> <p><b>Apache:</b> Tomcat, HTTPD, Wicket, ActiveMQ, ServiceMix, jUDDI, Scout, ODE, CXF, Axis, Axis2, Log4j, Commons (Logging, BeanUtils, Collections, Lang), Struts</p> <p><b>Web 2.0:</b> Dojo, JQuery, GWT</p> <p><b>JBoss:</b> Drools, jBPM, Hibernate, Microcontainer, ESB, Clustered Application Server</p> <p><b>IBM:</b> RSA, WebSphere, Process Server</p> <p><b>Databases:</b> Oracle 9i/10g, PostGres, MySQL, DB2</p> <p><b>Statistics:</b> Bayesian Models, Switching Kalman Filter, Viterbi path estimation, Markov Model, stereo vision</p>
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