

# TIMOTHY L. EKL

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## EXPERIENCE

### **Sandia National Laboratories** — *June 2011 to August 2011*

- Improved Python-based mathematical modeling software; reduced runtime and memory use
- Worked closely with team of programmers to introduce new features, including ODBC support
- Led team effort to improve automated unit-testing and continuous integration practices

### **Just5Clicks, Inc.** — *August 2008 to August 2010*

- Led development of iPhone app and RESTful API for database editing and synchronization
- Created PHP data management framework with entity-relation model on Microsoft SQL Server
- Ported several existing ASP.NET web applications to PHP while retaining legacy compatibility
- Spearheaded companywide implementation of distributed source control, Doxygen-based code documentation, and unit testing for applications; trained other developers in Agile practices

### **JTS Architects** — *July 2006 to August 2009*

- Migrated small business operations for a 15-employee office to Windows Server 2008
- Provided centralized email, database, backup, and domain logon across mixed client platforms
- Created and managed secure intranet and VPN, including internal SharePoint site
- Transferred existing data and services with minimal business interruption and no downtime

### **Independent development** - *August 2008 to Present*

- Created multiple iPhone/iPod Touch applications for personal use and sale on the App Store
- Managed transition from iPhone OS 2.1 to 5.0; adapted applications to make use of new OS
- Contributed applications as open-source projects for teaching purposes to college teams

## SKILLS

### **Software development**

- Worked on teams with multiple languages, including Java, Objective-C, Ruby, Python, C, PHP, C#, Scheme, and Visual Basic; also familiar with common frameworks such as JUnit
- Comfortable learning languages to meet requirements - past examples include Ruby and Perl
- Experience spanning many levels of application, including database architecture, controller logic, and UI; able to optimize applications for particular hardware or vice-versa
- Familiar with modern best practices, including Agile development, unit-testing, pair programming, distributed version control, and software architecture design patterns

### **Systems management**

- Experience in both Windows and Linux server environments, as well as Windows, Linux, and Mac desktops; able to freely mix server and client platforms for interoperability
- Comfortable deploying and using multiple database systems, including Microsoft SQL Server, MySQL, PostgreSQL, and SQLite
- Currently responsible for multiple Linux-based servers handling routing, email, and backups

### **Communication**

- Worked primarily in team/small group settings on numerous past projects, including year-long junior project and senior (capstone) project
- Well versed in Agile commenting practices and use of documentation tools such as Doxygen
- Ten years' experience in school newspaper programs; fluent in English and capable in German
- Comfortable with both written and spoken communications; practiced in presentation techniques using a variety of tools, such as PowerPoint, Keynote, and LaTeX

<b>EDUCATION</b>	<p><b>M.S. in Engineering Management</b>  <i>Rose-Hulman Institute of Technology, 2011-2012</i></p> <ul style="list-style-type: none"> <li>• Expected completion of MSEM program in May 2012 after one year of study</li> <li>• Granted graduate assistantship and teaching assistant position</li> <li>• Acted as “client” for undergraduate project teams and provided outreach to CS department</li> </ul> <p><b>B.S. in Computer Science, Software Engineering, and Mathematics</b>  <i>Rose-Hulman Institute of Technology, 2008-2011</i></p> <ul style="list-style-type: none"> <li>• Completed triple major program with German minor in May 2011 after three years of study</li> <li>• Cumulative GPA of 3.83 on a 4.0 scale; Dean’s List membership in all semesters</li> <li>• Recognized as Addison-Wesley Outstanding Senior; senior project team received awards</li> <li>• National Merit Scholar; recipient of multiple merit-based scholarships; member of Alpha Lambda Delta academic honors society</li> <li>• Worked as Learning Center tutor for math, physics, and computer science; and CS department teaching assistant; served as editor-in-chief of campus newspaper</li> </ul>
<b>WORKS</b>	<p><b>Publications</b></p> <ul style="list-style-type: none"> <li>• DiversIT: Inspiring Communication about Individuals’ Differences  <i>ACM CHI Conference: May 2011, Vancouver, Canada</i></li> </ul> <p><b>Presentations</b></p> <ul style="list-style-type: none"> <li>• Terre Haute Warming: predictive modeling of local climate change trends  <i>Rose-Hulman Undergraduate Math Conference; April 2011, Terre Haute, IN</i>  <i>Indiana State University math seminar; April 2011, Terre Haute, IN</i></li> </ul>
<b>COMMUNITY</b>	<p><b>Open-source contributor</b></p> <ul style="list-style-type: none"> <li>• Offered bugfixes, patches, testing to the Gentoo Linux distribution, primarily in networking</li> <li>• Past maintainer of Windows applications on Wine compatibility layer</li> <li>• Personally-developed iPhone applications and examples provided as open source on GitHub</li> </ul> <p><b>Community participant</b></p> <ul style="list-style-type: none"> <li>• Active member of programming Q&amp;A site StackOverflow</li> <li>• Follow numerous programming blogs and maintain personal programming-focused site</li> <li>• Provided free technical services to college organizations, including campus newspaper</li> </ul>