

Jurand Nogiec

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Objective

A position in software development or computer security.

Education

Current GPA 3.86/4.00

- Master of Computer Science, University of Illinois at Urbana-Champaign expected May 2012
- Certificate, Business Management for Engineers, Univ. of Illinois at Urbana-Champaign 2011
- B.S. in Computer Science, University of Illinois at Urbana-Champaign 2010

Work Experience

Summary:

Total of 2 years at temporary positions and 5 years of part-time work.

University of Illinois at Urbana-Champaign, Urbana, Illinois

Teaching Assistant 2010-Present

TA for *Software Engineering II*, *Computer Security I*, and *Security Laboratory* graduate level courses.

Network Technician (Part-time) 2007-2010

Troubleshoot and repaired computer and network issues in University Residence Halls. Monitored networks for security incidents. Provided consulting on computer and network problems to students.

CERN (European Organization for Nuclear Research), Geneva, Switzerland

Software Developer June-August 2011

Extended Indico, a large-scale Python-based contents management system used for conference management, by adding replication to its data management system. Evaluated performance and scalability of ZRS and neoppod ZODB object database replication systems.

Alcatel-Lucent, Naperville, Illinois

Software Engineer June-August 2010

- Designed, developed, and documented a data regression testing framework for telecommunications configuration files. Used Java (including JUnit and TestNG), XML, and proprietary Network Element data retrieval API.

Software Engineer June-August 2009

- Performed ethical hacking and penetration testing of a VoIP Session Border Controller. Used security auditing tools (Nessus, Codenomicon, nmap, Ethereal, Wireshark, and SIP flood tools).

Software Engineer June-August 2008

- Developed migration software for telecommunication features working in an international team. Used Java, XML, Eclipse SDK, XSLT, and C on UNIX platform.

Google Inc.

Student Developer, Google Summer of Code June-August 2008

Extended and improved nmap, an open-source security scanning tool included in the standard Linux distributions. Corrected various issues, proposed extensions and developed a more intuitive version of a GUI with a context-sensitive help system. Used Python, PyGTK and C on the Linux and Windows platforms.

- Fermilab** (Fermi National Accelerator Laboratory), Batavia, Illinois Jun-Aug 2007, Jun-Aug 2006
Network Administrator, Software Developer Jun-Aug 2005, Jun-Aug 2004
- Provided support for computer systems and networks. Troubleshot problems, corrected issues, installed operating systems and applications and deployed computer systems.
 - Co-developed and supported a Zope Plone based content management system.
- mtvU** (Viacom International, Inc.) Sep. 2006 - Jan. 2007
Freelance Technology Researcher
 Researched, assessed and described novel and unique internet and technology developments.

Publications

B. Daniel, D. Dig, T. Gvero, V. Jagannath, J. Jiaa, D. Mitchell, J. Nogiec, S. H. Tan, and D. Marinov. ReAssert: A tool for repairing broken unit tests. In *Proceedings of the International Conference on Software Engineering*, Honolulu, HI, May 2011.

Independent Projects

- Co-developed the video games *Frantic Elevator* and *quantumS* using C++, DirectX, C and Microsoft XNA for ACM sponsored GameBuilders Project (2006-2008).
- Developed *freedible.com*, a web-based campus-wide food events calendar application. Used PHP, MySQL, calendaring software, and the Facebook API (2007).
- Extended ReAssert, a Java tool to automatically correct and re-generate JUnit test cases (2010).
- Co-developed a family of games that are based on a common framework and use the Kinect motion sensing input device (2011).
- Developed a user space Linux thread library with Mesa-like monitors for synchronization (2011).
- Analyzed and constructed Client HoneyPot computer security scanning tools (2011).
- Developed *Illini Tutor Search*, a campus WWW site, using PHP, MySQL and AJAX jQuery (2012).

Recognition

- Illinois Technology Association Fall Challenge Finalist (2011)
- Universities Research Association (URA) Scholarship
- Dean's List during B.S. in Computer Science at University of Illinois Urbana-Champaign
- ICTM Mathematics Championships, Finalist team at Regionals

Skills

- **Core Languages:** Java, C++, C, Python
- **Other Languages:** SQL, PHP, JavaScript, XML, XSLT, HTML/CSS, UNIX shell scripting, OCaml, Ruby, MIPS, Smalltalk
- **Systems:** Linux, Windows, UNIX, MacOS, Apache, relational (MySQL) and object-oriented (ZODB) databases, POSIX threads (pthreads), content management systems (Plone), SVN, git, Eclipse IDE, Unit testing (JUnit), Software verification tools (Java PathFinder)
- **Programming:** object-oriented design and programming, design and architectural patterns, system and kernel programming, concurrent programming, agile methodologies.
- **System Administration:** computer system administration, configuration and installation of systems, problem troubleshooting, computer and network security, networking, hardware installation

Professional Memberships

- ACM, SIAM, IEEE, Illinois Technology Association (ITA)