

AALOK KARNIK

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Objective: Well rounded developer seeking full-time position to gain more experience with mobile application development & information security.

Professional Summary:

- Able to write scalable, security focused, optimized code
- Develop quick prototypes using agile development techniques
- Good understanding of human usability & multiple server side technologies resulting in user friendly apps.

Education

School	Degree
University of Southern California Los Angeles, California (Aug `04 – Dec `06)	MS in Computer Science Specialization : Computer Science (MSCS)
Symbiosis Institute of Computer Studies & Research Pune, India (Aug `02 – July `04)	MS in Computer Applications Specialization : J2EE (MSc C.A. – J2EE)
Nowrosjee Wadia College, Pune University Pune, India (July `99 – June `02)	BS in Computer Science Specialization : Computer Science (BCS)

Technical Skills

Operating System Platforms: Microsoft Windows, UNIX

Virtualization: VMWare

Mobile: Android SDK

Programming Languages: Java, C/C++

Databases: Oracle, MySQL, MS-SQL

Concepts and RAD Tools: OOPS, AJAX, JSON, REST Services, JDeveloper, Netbeans, Eclipse

Application & Web Servers: Apache Tomcat, Sun ONE, IIS

Internet Programming, Scripting & Markup Languages: HTML, JSP, Servlets & Java Beans, Coldfusion, PHP, JavaScript, CSS, DOM, .NET, XML

Frameworks: J2EE, Android SDK, .NET, Ruby on Rails

Security Tools: nMap, Nessus, Retina, Ethereal, Autopsy, Sys-Internals toolset

Work Experience

McAfee – Security Researcher (July 2008 – present)

- Part of a 20 member McAfeeSECURE team committed to detecting web based vulnerabilities
- Vulnerability detection involved usage of a proprietary scanner & penetration testing scripts
- Maintained vulnerability content descriptions & severity change
- Participated in the mandatory industry level PCI ASV re-certification test
- Assisted customer support with issue resolution regarding vulnerabilities
- Led a weekly conference call with Japanese customer support
- Developed internal tools to assist with data analysis
- Designed an internal android tool to mimic McAfeeSECURE portal functionality

Android Mobile Projects (Jan 2010 – present)

- Card Caller: simplify usage of calling cards for international phone calls
- Bombay Love: used for club event management. Streaming audio to listen to mixtapes

Webroot – Threat Research Analyst (Mar 2007 – June 2008)

- Tasked with analyzing spyware & contribute to spyware definitions in a 20 member threat research team
- Involved usage of a combination of proprietary & other common security tools to monitor activity
- Safely analyzed behaviour in a VMWare sandboxed environment
- Mainly Windows based spies were analyzed leading to analysis of registry traces, file & network activity

Piktor – personal photo album (June 2006 – present; <http://aalokkarnik.info/piktor/piktor.php>)

- AJAX, PHP, MySQL based personal photo album
- Features comprise album creation, image tagging, pagination, delayed transparent popup's, smart caching
- Security features include integrated administrative panel, file mime type checking, IP logging
- Involved with UI design, DB structure, navigation, process workflow
- Future enhancements include a web based installer & verifier, usage statistics, backup, album downloading, image & album link emailing, album views in filmstrip & slideshow formats

USC Law school – Website Designer (Nov 2005 – June 2006)

- Convert a static www.iandrinstute.org to a dynamic database driven <https://mylaw.usc.edu/portal/iri>
- Responsible for requirement gathering & analysis, architecture & design, development & deployment
- Provide milestone reports to show progress & design new interfaces to facilitate better data entry & information management
- Coldfusion, MSSQL Server based system provides content management, role based access control features

Lab Assistant / grader for CS530L – Computer Security lab at the University of Southern California (Fall 2005, Spring 2006)

- Assisted students with lab assignments involving common security attacks: SQL injections etc

Interwoven Technologies, Member of Technical Staff (intern; June 2005 – Aug 2005)

- Interned with TeamSite development team of TeamSite 6.7. Features: flex roles, utility daemon
- Wrote perl scripts for automated remote execution of Junit test scripts on Solaris and Windows

Entrance Examination Website (team leader, lead programmer, system designer; Aug 2003 – Oct 2003)

- Unified & led a workforce of 5 from conceptualization to implementation for Symbiosis Institute of Computer Studies & Research (SICSR) in 40 days in capacity of team leader, lead programmer, system designer
- Delegated tasks assessing team core competency.
- Trained 3 team members on JSP, servlets and java beans, javascript. Implemented SDLC
- Accountable to higher management through project milestone presentations
- Java, MySQL, Tomcat & Apache based system
- Features included role based access, automated event based e-mailing, profiling, administrative panel, search capabilities, easy file based system configuration
- Technologies used JSP, servlets, java beans, javascript, java mail

Miscellaneous Projects

Content Management System (system design, coding & implementation; May 2005 – Nov 2005)

- Web based system for a research group at USC (TeamCore) designed to simplify content management
- JSP, servlets, AJAX, MySQL, Tomcat based system

Spyware Guide for the Layman (June 2005 – present; <http://aalokkarnik.info/articles/spyware>)

- Set of articles to educate a layman on spyware
- Topics include motivation to write spyware, detection & removal techniques, tracing perpetrators, new emerging attack techniques, malicious code and more
- Research involved carrying out a social engineering attack leading to a corporate network compromise

Related Coursework

Computer Security, Web Technologies & Services (WSDL, XML and SOAP, AJAX), Computer Networks & Communications, Database Systems & Design, Operating Systems, Software Design & Engineering, Data Structures, Object Oriented Programming, Multimedia Systems & Design, Online Networked Games, User Interface Design & HCI