

SANCHIT KARVE

<http://www.sanchitkarve.com> • write2sanchit@gmail.com • (425) 985-6945 • 1335 NW Kings Blvd. APT C9, Corvallis OR 97330

Objective

To obtain a full-time position in June 2012 that enables me to use my skill sets in desktop/web/mobile development, reverse engineering and application/network security.

Highlights

- Extensive experience in Application development (client and server side), Mobile Applications development and Reverse Engineering.
- Moderator on large online programming forums (like dreamincode.net, with more than 450,000 members) with a passion for teaching and helping co-developers solve problems.
- Ardent programmer proficient in a variety of software tools and technologies and having expertise in C++, .NET, PHP, Java, x86_asm.

Skill Set

Programming Languages	C, C++, Java SE/ME/Android, C#, PHP, 80x86 Assembly, VB.NET, R
Databases Used	MySQL, Oracle, SQL Server 2008
Integrated Development Environments	Microsoft Visual Studio 2008, NetBeans IDE, Eclipse IDE
Version Control Software	SVN, Git, TFS
Operating Systems	Windows 9x, XP, Vista, 7, Linux (Fedora and Ubuntu distributions)
Content Management Systems	Drupal, Joomla
Reverse Engineering/Security Tools	IDA, OllyDbg, HIEW, WireShark

Education

Masters in Computer Science - HCI major	Oregon State University (GPA: 3.55)	September 2010 - present
Bachelor of Engineering - Computer Engineering	University of Mumbai, India (GPA: 7 on a scale of 10)	June 2006 – June 2010

Work Experience

Graduate Research Assistant, Oregon State University

Sept 2010 – present

Currently Researching Reusability of Software Components on Online Repositories by analyzing “low ceremony evidence” such as reviews/comments, age, usage statistics, etc. of source code posted on CodeProject.com and SourceForge.net to predict its quality.
Project URL: <http://www.sanchitkarve.com/gradschool/>

Software Engineering Intern, Electro-Scientific Industries (ESI), Portland, OR

June 2011 – Sept 2011

Worked on the GUI (C#) and Control Programs (C++) of ESI's 3500 (Multi-Layer Ceramic Capacitor Tester) and 3800 (LED Tester) models.

- 1) Added Multi-threading functionality in the 3500 to speed up the process of finding the ideal vibration frequency of its feeder.
- 2) Created a Custom Version Controller for Visual Studio 2008/2010 that incorporates Changeset IDs from Team Foundation Server (TFS), Build Accounts, TFS Branch Labels, etc. into the Application's manifest.
- 3) Added software licensing code to provide access to 3500's Stress Test features only to licensed users.
- 4) Created a Diagnostic Tool capable of creating and editing Simulation Test files for the 3800 LED Tester.
- 5) Added graphing functionality in the 3500 GUI to present a visual representation of data from log files.
- 6) Added code to reduce number of sensors required to detect bin drawer states in the 3500.
- 7) Extended existing code to support an additional shim sensor in the 3500.

3500 Project URL: <http://www.esi.com/Products/PassiveComponents/ElectricalTesters.aspx>

3800 Project URL: <http://www.esi.com/Products/PassiveComponents/LEDTesters.aspx>

Student Developer, Oregon State University (Business Solutions Group – Software Dev.)

Feb 2011 – June 2011

- 1) Developing a system called Transportation Operating Center System (TOCS) using C# and ASP.NET for the Oregon Department of Transportation (ODOT) to consolidate its 4 regional dispatch centers throughout the state integrating multiple software and information systems. When complete, this project will have combined the functionality of multiple event (e.g., road/weather condition monitoring, dispatch, etc.) and resource management systems into one TOCS application capable of independent operation at each center with the ability to backup one operation center from another. It will also create an interface with the Oregon State Police to exchange data.
- 2) Created Data Structures using Salesforce to consolidate student information from various departments to create an internal job portal.

Project URL: <http://bsg.oregonstate.edu>

AI Developer, Oregon State University (School of Electrical Engineering and Computer Science)

Oct 2010 – Jan 2011

Ported and tested an MS-Outlook plugin written for Outlook 2007 to work with Outlook 2010. Used VSTO with C# for creating an interface between the Outlook plugin, a SOAP/WSDL web service and Java sockets. Also wrote and tested code for generating and reading data formatted in XML and JSON using C#. “TaskTracer” is a Task-Based Interruption Recovery & Knowledge Management tool to investigate the possibilities of a desktop software system that will track in detail how knowledge workers complete tasks and intelligently leverage that information to increase efficiency and productivity.

Project URL: <http://eeecs.oregonstate.edu/TaskTracer>

Configured, developed and tested an intranet web application “**National Health and Safety Portal**” using JSP, which is being scaled for implementation in all branches of Tata Consultancy Services, India.

Designed and developed a utility for database backup and migration which was implemented as a module in the Health and Safety Portal.

Projects:

SourceForge.net Project Review Summarizer

Using: Natural Language Processing (NLP), C#, SourceForge.net Read-Only API

Used a set of NLP techniques to retrieve the quality of features of open-source software from their reviews on SourceForge.net

Project URL: <http://www.sanchitkarve.com/gradschool>

Universal Mobile Device Synchronization

Using: PHP, J2ME, C#

This system enables users to synchronize their personal information seamlessly across mobile devices and computers irrespective of the device platform.

Project URL: <http://www.sanchitkarve.com/umds>

PocketFare – Mumbai

Using: J2ME, PHP, Java for Android

This system enables users to view the latest fares for the taxis and auto-rickshaws of Mumbai, India. The latest fares can be downloaded when the fares are updated by the Regional Transport Office, Mumbai (RTO). A daily newspaper “Maharashtra Times”, which has a readership of over 1 million, published an article about this application in August 2010. Also appeared for a live interview on a national news Channel TV9 (Hindi) about the mobile application.

Project URL: <http://www.sanchitkarve.com/projects/pocketfaremumbai>

Source Code Complexity and Object Oriented Metric Calculations

Using: C#, Java, JSLint

This application scrapes article information and the source code of every article on CodeProject.com and analyzes the source code in every revision to compute entropy of changes, previous defects and various object oriented metrics and defect predictors. Further research also involves interfacing with a Java application that calculates bad smells metrics written by Dr. Christian Doerner from Carnegie Mellon University.

Academic and Research Advisor: Dr. Christopher Scaffidi (<http://eecs.oregonstate.edu/research/members/scaffidi>)

BunkM – Mobile Attendance Manager

Using: J2ME, PHP

This project enables students from Indian Universities to manage their attendance and check if they need to attend additional lectures to fulfil the minimum attendance requirement for their course. It also features a backup system where users can upload and download their attendance information on the web server. A daily newspaper “Maharashtra Times”, which has a readership of over 1 million, published an article about this application in September 2010.

Project URL: <http://www.sanchitkarve.com/projects/bunkm>

J2ME Accelerometer API for Nokia SymbianS60 v9.2 and below

Using: J2ME, Local Sockets

Accelerometers on Nokia phones running Symbian OS v9.3 or below are not accessible by the J2ME API. This project provides a library for J2ME developers to interface with the accelerometer on such phones. The library is used with Slider’s Edge binaries as the server socket.

Academic Achievements and Awards

- Held posts of **Assistant Technical Secretary** and **Technical Secretary** of XIE in 2007 and 2009.
- Secured **All India Rank 169** in the **4th National Cyber Olympiad** held in 2005-2006.
- Awarded **third place** for technical paper on “**Application Security using Reverse Engineering**” in Don Bosco Institute of Technology, Mumbai in 2006.
- **Ranked 2nd** for Computer Programming I course in Computer Engineering and Information Technology branches in XIE.
- Selected as **Microsoft Student Partner** for recognition of technical skills in Microsoft development tools.

Co-curricular Activities

- **Moderator** since **May 2006** on **dreamincode.net**, a programming and web development forum with over 400,000 members.
- Active member of Institute of Electrical and Electronics Engineers (IEEE) and Computer Society of India (CSI).
- Organized C++ and Java Programming Contests in XIE in 2008.
- Presented a seminar on **Visual Basic** on behalf of **Computer Society of India (CSI)** in Xavier Institute of Engineering, Mumbai.
- Winner of English Debates, Extempore speaking and instrumental music competitions held in XIE during 2007-2009.
- Promoted to the highest rank of **Troop Leader (3-Starrer)** of **Road Safety Patrol (RSP)** in St. Mary’s ICSE School, a social service organization that assists the police with traffic management in India and was awarded the **Mathew Misquita Scholarship for best RSP cadet** in 2004.