

# Rahul Vaidya

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## Objectives

Seeking an enriching development position that allows me to use my skills in Computer Science and Computer Engineering.

## Education

Currently pursuing **M.S.** Computer Science, University of California, Los Angeles (**UCLA**)

**B.S.** Computer Engineering, University of California, Irvine (**UCI**), June 2007.

Languages/frameworks: **Python, Java, JSF**, JDBC, **JSP/Servlets, C#/XNA, C++, C**, assembly, (OpenGL C++), PostgreSQL, PL/SQL, **RPC, AJAX, GWT, DCOM (JIntegra)**

Database: **MS SQL Server, MySQL, PostgreSQL**

Engineering Courses: Boolean Logic, Transient/Steady State Circuits, VHDL, Algorithms, Semiconductor Fundamentals, Signal/System Analysis (Transient and Discrete), Cisco router configuration and network setup

Software Courses: Computer Networks (TCP, ATM), Computer Architecture (Components and assembly programming), Computer Graphics (OpenGL C++), Operating Systems, Digital Image Processing with **Matlab** and Java, Game Development (C#/XNA).

## Experience

Aug 2007 – Sep 2007 **Intern, StrataGent Life Sciences, Inc.**

- Performed transient signal analysis on an electronically driven physical system. Measured a piezoelectric linear actuator's displacement using a laser triangulation device with an analog voltage output, and analyzed it alongside the input voltage pulse. Performed Fourier analysis to identify noise due to resonance of the piezo's mount, the test setup, etc. Imaged the system using a Photron high-speed camera to view physical characteristics at the microsecond level.
  - Wrote a program that interfaces with the company's oscilloscope, captures waveform data as voltage vs. time, and performs fast Fourier transforms over the data automatically. The program included with the oscilloscope only captures data as oscilloscope screen coordinates rather than voltage vs. time data, which is impractical for research purposes.

2007 – Present **Undergraduate Research Assistant, University of California, Irvine**

- Developing a PHP server side collaboration solution to allow developers using a certain debug tool to upload bugs, test cases, and error information to a server automatically. Solution integrates SVN functionality along with bug tracking, allowing developers to check out arbitrary versions of code that other developers submitted. Diffs are used to track areas of source code where problematic bugs exist.

2006 – 2007 **Network Academic & Computing Services, University of California – Irvine**

Developed an interactive campus map system using ArcGIS Server (Geographic Information Systems) framework provided by ESRI. ArcGIS offers a set of COM objects that allow management of geospatially correlated data, and has a Java API that wraps calls to these COM objects within network requests. ArcIMS subset supports display and retrieval of geospatial data objects through a proprietary XML AJAX implementation. Data is stored in a database, accessible by proprietary API as well as JDBC. I was responsible for the full implementation of the project. Project included:

- Initial implementation on Linux using Mainwin (Com/.NET to J2EE port done by ESRI), followed by native Windows implementation
- Integration of GUI framework using JSP and JSF and customized implementation using GWT (Google Web Toolkit) to allow additional geospatial data manipulation.

2005 Summer **Independent Project Contributor for Java.Net** (Sun Microsystems Initiative)

Developed a **Java tool** that allows java.net community leaders and project coordinators to extract project related information from Collabnet DB and organize it into a **MySQL** database. [<https://jnetparser.dev.java.net/>] (Requires account registration). Information tells how active a project is, how often accessed/modified/downloaded by java.net users and developers. It also alerts about projects that need status changes.

2004 Summer Internship, **PharmQuest Corporation** [<http://www.pharmquest.com>]:

Created a script engine, written in **Python** and Java (**Jython**), to automate stress/ functionality testing of the company's web pages. It was used as the QA platform for daily automated testing. The previous system used XML as the scripting interface, which was very inefficient and difficult to read and use.

2003 – Present **Consulting Web Design/Web Master:**

- Co-developed an HTML demo for TSE Corporation. The narrated demo can be accessed at: [<http://www.ychem.com/rahul/tsedemo.wmv>]
- Host and manage Windows based servers such as FTP servers and Web servers (Apache). Some experience with UNIX shell scripting. Currently web designer/webmaster for [<http://www.chirosolve.com>].

Other **Technical/Clerical Experiences**

- Trouble-shooting OS, drivers, and hardware related problems on PC
- Building and configuring PC systems using individual components