

Shrey Banga

CONTACT INFORMATION

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EDUCATION

UNIVERSITY of NORTH CAROLINA at CHAPEL HILL, Chapel Hill, NC, USA
Master of Science in Computer Science, May, 2013 (expected)

INDIAN INSTITUTE of TECHNOLOGY ROORKEE, Roorkee, Uttarakhand, India

Bachelor of Technology in Electrical Engineering, May, 2009 CGPA: 8.143/10

EXPERIENCE

May - August, 2012

Google Inc. *Software Engineering Intern* Mountain View, California
Created a tool for automatic regression alerts in Chrome's performance. Fixed a WebKit bug, improving performance by a few percent. Analyzed the effects of an alternative DNS alias selection strategy.

January - August, 2011

Adobe Systems Inc. *Member of Technical Staff* NOIDA, India
Worked on improving and maintaining *Camelot*, the PostScript printing engine.

July - December, 2010

Center for Visual Information Technology *Project Engineer - Virtual Lab* IIIT Hyderabad
Designed a virtual lab for Computer Graphics, as part of a Government of India initiative for teaching sciences across colleges in India.

June, 2009 - April, 2010

Deloitte & Touche *Consultant* Hyderabad, India
Helped implement a Biometric and Smart-Card authentication solution.
Performed vulnerability assessment and penetration testing on network infrastructure of several Fortune 500 companies

May, 2008 to July, 2008

IBM India Software Labs *Software Engineering Intern* Bangalore, India
Created the EAR PlanCreator, an ajax-based plugin for quickly creating deployment plans for enterprise applications on Apache's Geronimo server.

PROJECTS

August - December, 2011

Computer Graphics

- *Raytracers.* created raytracers supporting common primitives, cameras, projections, transformations, shading models, textures, reflection and refraction, global illumination, kD-tree acceleration and a scene file compiler.
- *L-systems* parser and renderer for rendering fractals and other complex shapes.
- *Force-directed layout* to display complex relationships of objects interactively in flash.

January - August, 2012

Compilers

miniJava compiler compiles a subset of Java into bytecode for a VM. Supports inheritance (instanceof, extends), overloading, constructors, loops, Strings and efficient code generation via short circuiting.

January - August, 2011

Android Development

DownloadAccelerator. An Android app that accelerates downloads by splitting files into multiple parts and downloading them concurrently.

September - December, 2011

Chrome Extensions

- *Google Mail Multi-Account Checker* Shows multiple Gmail inboxes in a single pop-up, with common tasks such as delete, archive and mark as read. **Over 22,000 users**.
- *Counter*. Counts your visits to websites and optionally blocks the page for a short time.

August, 2012

Powerline for Bash A Python script that renders a beautiful and useful bash prompt

May, 2011

IDSearch.vim A front-end to GNU ID utils which adds find-in-files support to *Vim* for large projects where grep isn't fast enough.

January - May, 2008

Machine Learning

- *Facial Expression Recognition* using a combination of Local Binary Patterns and SVM based classifiers.

January - May, 2007

Microprocessors

- *Intel 8085A Emulator*. An emulator for the Intel 8085A microprocessor with a modern GUI

Web Design

- *Watch Out! News Agency*. A website for the students' news magazine of IIT Roorkee.
- *Thomso'07 & Srishti'07* Websites for several cultural and technical events at IIT Roorkee.

COMPUTER SKILLS

Courses

Algorithm Analysis, Operating Systems, Data Structures, Compilers

Languages

C, C++, Java, Python, JavaScript, HTML+CSS, shell script

Platforms & Tools

Vim, unix commands, git, Eclipse, Visual Studio, L^AT_EX

CO-CURRICULAR ACTIVITIES

Programming Contests

- Third in *Code Sangram*, an *IEEE (Roorkee chapter)* programming contest.
- Participate regularly in programming contests on CodeChef, SPOJ, CodeJam, Hacker Cup etc.

Software Development Section, Hobbies Club, IIT Roorkee

Quizzing and Debating at **Literary Section**, IIT Roorkee

Executive Editor & Chief Web Coordinator, *Watch Out! News Agency*, IIT Roorkee

Chief Web Designer, *Thomso'07*, IIT Roorkee