

# Gaurav Garg

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## EDUCATION

### University of California, Berkeley

Berkeley, CA

B.S. Electrical Engineering and Computer Sciences

Expected May, 2017

GPA: 3.54/4.0

*Relevant Coursework:* Structure and Interpretation of Computer Programs (CS 61A), Data Structures (CS 61B), iOS Game Development (DeCal), Calculus (Math 1A & 1B), Physics for scientists and engineers (Phy 7A),

*Enrolled:* Machine Structures (CS 61C), Multivariable Calculus (Math 53), Linear Algebra and Differential Equations (Math 54)

## EXPERIENCE

### Infosys | Software Development Intern

Jun 2014 – Aug 2014

Implemented a JavaScript intrusion alert system to detect Cross-site scripting (XSS) attacks on live web applications in real time. Achieved by cloning the response HTML and deploying headless browsers (PhantomJS) on the server (Tomcat) using JSP. Made a basic admin portal to view the attack log.

Awarded second runner up in the annual Infosys InStep Business Plan Competition. 31 teams participated, a record total of 122 participants from top universities. Presented on Initiating operations in Colombia and why that is a strategic move for Infosys.

### CITRIS Mobile App Challenge | App Developer

Feb 2014 – May 2014

Developer at team HandiRoute for the CITRIS Mobile app challenge. HandiRoute is an Android application designed to find disabled friendly areas. Achieved by crowdsourcing data and using the Google maps API.

### CS 61A Course Staff | Lab Assistant

Feb 2014 – May 2014

Assisted students with projects, lab work, homework and taught debugging techniques and good coding practices.

### Berkeley Centre for New Media | Front End and AI Developer

Sep 2013 – Feb 2014

Implemented front end for the Web App, Turing Test Tournament using JavaScript (jQuery) and Bootstrap. Designed an artificially intelligent chatbot for the app using ChatScript. The team collaborated using Git. Organized the 'Meet My Bot' hackathon to promote the website.

## PROJECTS

**Parallelized BFS.** Wrote software to strongly solve a sliding puzzle using Breadth First Search traversal to create the game tree. Implemented in MapReduce model using the Apache Spark framework, optimized using partitioning and hashing. Ran the implementation on a cluster of Amazon Web Services Elastic Compute Cloud (AWS EC2) servers.

**Image Edge Detection.** Wrote Java program to implement blurring and Sobel edge detection algorithms on color images and compress the TIFF format output using run-length encoding to reduce file size.

**Invaders.** Developed An iOS version of the classic game Space Invaders using Sprite Builder for animation and physics engine to detect collisions.

**YouTube Smart Search.** Built Chrome extension that adds a search box to the sidebar on YouTube and uses the YouTube data API to search and view results on the sidebar while watching the video.

**Time Capsule.** Published Windows Phone app that displays the calendar for any given date including options for AD and BC. The < 1 MB app works offline and is capable of computing inputs such as May 1423 BC.

**Fortune Cookie.** Published Windows Phone app that randomly selects and displays from a list of fortunes and "lucky" numbers with options to save and share.

## SKILLS

Java • Python • JavaScript • C • HTML • Spark (MapReduce) • MIPS • Scheme • CSS • PhantomJS • ChatScript • Git