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), **Machine Architecture** (CS 61C), **Linear Algebra** and Differential Equations (Math 54). *Spring 2015:* **Operating Systems** and System Programming (CS 162), **Unix** (CS 9E), **Discrete Math** and **Probability Theory** (CS 70).

The Doon School, 2013
Scored 100% in Computer Science in both 12th and 10th grade state exams. Recipient of the Duke of Edinburgh award. SAT Math II: 790/800. SAT Phy: 780/800. TOEFL: 114/120.

EXPERIENCE

Infosys | Software Development Intern Jun 2014 – Aug 2014

- Successfully implemented a **JavaScript** intrusion alert system to detect **Cross-site scripting** (XSS) attacks on live **web applications** in real time.
- Achieved by cloning response HTMLs from the **Tomcat** server using **Filters** and executing them via **JSP** on a **headless browser** (**PhantomJS**) with overridden JS methods**.** Made a basic admin portal to view the attack log.
- Presented documentation and report and demoed the software for the senior team of Infosys Labs.
- Awarded second runner up in the annual Infosys InStep **Business Plan** Competition against 122 participants from top universities. Presented on Initiating operations in Colombia and why that is a strategic move.

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, labs, homework and taught debugging techniques and best 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**.
- Collaborated using **Git** and pair programming. Organized the 'Meet My Bot' **hackathon** to promote the website.

PROJECTS

Parallelized Breadth First Search. Wrote software to strongly solve a sliding puzzle using **BFS traversal** to create the **game tree**. Implemented in **MapReduce** model using the **Apache Spark** framework, optimized by **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 Side Search. Built **Chrome extension** that adds a search box to the sidebar on YouTube and uses the **YouTube data API** to allow users to search and view results on the sidebar while watching the video.

SKILLS

Proficient: Python • Java • JavaScript • HTML • Algorithms and Data Structures
Experienced: C • Spark (MapReduce) • MIPS • Scheme • CSS • Git • iOS and Android app development

Last Updated on Dec 13, 2014