

Gaurav Garg

Berkeley, CA 94720

garggaurav@berkeley.edu | gauravgarg.me

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). *Enrolled:* **Machine Structures** (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 ISC and ICSE national exams. Recipient of the Duke of Edinburgh award. Received editor's award and featured on front page of online fiction magazine TeenInk.

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 the user to search and view results on the sidebar while watching the video.

SKILLS

Proficient: Python • Java • JavaScript • HTML

Experienced: C • Spark (MapReduce) • MIPS • Scheme • CSS • iOS and Android app development • Git

Last Updated on Nov 23, 2014