# Brijesh Rakholia

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### **Education**

University at Buffalo - The State University of New York (anticipated May 2017) BSc. Computer Science. Dean's List.

### **Relevant Coursework**

- Intro to Java I & II (CSE 115 116)
- Discrete Mathematics and its App (CSE 191)
- Digital Systems and Verilog HDL (CSE 241)
- Data Structures in C++ (CSE 250)
- Programming Languages (CSE 305)
- Database Concepts (CSE 462)
- Math Calc I & II (MTH 141-142)
- Probability Theory (MTH 411)

### **Research Experience**

#### University at Buffalo PhoneLab REU: Undergraduate Researcher

[February 2015 - Present]

- Progresso (Feb 2015 Present): A system to determine co-relations within app's UI components such as progress bars. These co-relations are totally based on user interference, time & data.
  - o Working under the supervision of Dr.Geoffrey Challen and Nick DiRienzo

#### University at Buffalo CSE Department: Research Assistant

[September 2014 - December 2014]

- iGlobe Interactive Visualization and Analysis of Geospatial Data Sets on a 3D Globe
  - It is a unified framework that allows integration of disparate geospatial data sources that include remotely sensed observation data, climate model outputs, population and critical infrastructure data, and provide an interface for both client visual analytics and server-side data mining capabilities.
  - Developed various web-services for the project
  - o Members: Dr. Varun Chandola and Amey Mahajan (Student)

### **Personal Projects**

#### Global Lost & Found (Under Development)

[Jan 2015 - Present]

 An interactive website which will provide a robust interface for society to track down their lost items using Google Maps.

#### Robotic Arm in 3D Space [JavaScript]

[Summer 2014]

- Designed a robotic arm which can follow the shadow of hands in 3D Space
- Used laws of inverse kinematics to design the algorithm for the arm
- Video can be found at: http://tinyurl.com/pfc6b9c
- Source code can be found at: github.com/brijeshrakholia

### **Technical Skills**

- Java [Proficient]
- C++ [Proficient]
- C [Competent]
- Git [Competent]
- Python [Familiar]
- Flask [Familiar]
- HTML [Proficient]
- CSS [Competent]
- JavaScript [Competent]
- Arduino [Competent]
- Leap Motion [Competent]
- Android [Competent]

## Leadership, Achievements & Awards

University at Buffalo - Dean's List Award

[Spring 2014]

### Krushi Award by The Prime Minister of India (Narendra Modi)

[March 2013]

• Felicitated by Narendra Modi at Jamnagar Agricultural University for designing an innovative solution to stop the contamination of Mangoes.

### World Robot Olympiad - Kuala Lumpur, Malaysia

[November 2012]

- After winning India's national competition, we represented India at WRO
- Ranked top 15 globally out of 125 teams

### Open European Championship - Mannheim, Germany

[June 2012]

- After winning India's national competition, we represented India at OEC
- Awarded Champions Trophy 2<sup>nd</sup> place globally out of 130 teams

### FIRST Tech Challenge (FTC) - Team India Mentor

[January 2015]

- India Champions, and will be representing India at USA St.Louis at FIRST Championships
- Taught students basics of C and helped them develop tele-operational and autonomous processes of the robot

#### FIRST Lego League (FLL) - Team India Mentor

[January 2015]

- India Champions, and will be representing India at USA St.Louis at FIRST Championships
- Help students brainstorm the research part of the competition. We are currently developing a system using which grade 1-5 kids would be able to learn money management effectively at an early age Amazon for kids!

### FIRST Lego League (FLL) - Team India Mentor

[January 2013]

• Won the best teamwork award at FIRST World Championship 2013 - St.Louis, Missouri