# Rajkumar Darbar

☎ +91 9635118040
✉ rajdarbar.r@gmail.com
🖰 https://rajkdarbar.github.io/

## Education

**2013–2016**   **MS (By Research)**, *Department of Computer Science and Engineering, Indian Institute of Technology Kharagpur, India*, CGPA-9.03/10.
Thesis Title: Interactions with Smartphones and Smartwatches: Context-Awareness, Text Entry Interfaces, and Input Beyond Touch.

**2008–2012**   **B.Tech**, *West Bengal University of Technology, Kolkata*, CGPA-8.44/10.
Specialization: Information Technology

**2006–2008**   **XII**, *West Bengal Council of Higher Secondary Education*, 85.42% .

**2004–2006**   **X**, *West Bengal Board of Secondary Education*, 87.75%.

## Experience

**March, 2017– October, 2017**   **Research Associate**, *Embedded Interaction Lab, Dept. of Design, IIT Guwahati*.
Developed a mobile-based head mounted virtual reality platform for training and educating community health workers.

**June, 2016–Jan, 2017**   **Summer Intern**, *Samsung R&D Institute, Bangalore*.
Developed a seamless interaction technique to control physical appliances in Internet of Things (IoT) environment using a smart-ring.

**May, 2015–July, 2015**   **Summer Intern**, *Xerox Research Center India, Bangalore*.
Designed a framework using smartwatch's accelerometer and gyroscope sensors to recognize a set of arm actions on a fine-grained level.

**July, 2012–Dec, 2012**   **Project Trainee**, *CVPR Unit, Indian Statistical Institute, Kolkata*.
Conducted research on authentication of Indian bank-note using image processing and pattern recognition techniques.

## Research Interests

Human Computer Interaction, Mobile & Ubiquitous Computing, Machine Learning.

## Publications

[1] Shimmila Bhowmick, **Rajkumar Darbar**, Keyur Sorathia, "Pragati: Design and Evaluation of A Mobile Phone-Based Head Mounted Virtual Reality Platform to Train Community Health Workers in Rural India", In $36^{th}$ ACM Conference on Human Factors in Computing Systems (CHI 2018) (Submitted).

[2] **Rajkumar Darbar**, Prasanta Kr. Sen, Debasis Samanta, "PressTact: Side Pressure-Based Input for Smartwatch Interaction", In $34^{th}$ ACM Conference on Human Factors in Computing Systems (CHI 2016), 7 - 12 May, 2016, San Jose, CA, USA. (Late-Breaking Work Category)

[3] **Rajkumar Darbar**, Debasis Samanta, "SurfaceSense: Smartphone Can Recognize Where It Is Kept", In $7^{th}$ ACM International conference on Human Computer Interaction (IndiaHCI 2015), 17 - 19 Dec, 2015, IIT Guwahati, India.

[4] **Rajkumar Darbar**, Prasanta Kr. Sen, Punyashlok Dash, Debasis Samanta, "Using Hall Effect Sensors for 3D space Text Entry on Smartwatches", In $7^{th}$ IEEE International conference on Intelligent Human Computer Interaction (IHCI 2015), 14 - 16 Dec, 2015, IIIT Allahabad, India.

[5] Biswajit Halder, **Rajkumar Darbar**, Utpal Garain, Abhoy Ch. Mondal, "Analysis of Fluorescent Paper Pulps for Detecting Counterfeit Indian Paper Money", In 10th International Conference on Information Systems Security (ICISS 2014), 16 - 20 Dec, 2014, IDRBT Hyderabad, India.

## Technical Skills

C, C++, Java, Python, Android, Weka, Matlab, Arduino, Tizen.

## Awards & Fellowships

- Received travel grant from Microsoft Research India to attend CHI 2016 conference.
- Senior Research Fellowship (SRF), SRIC-IIT Kharagpur, 2013 - 2014.

## Extra Curricular

- Student volunteer at IEEE TechSym'14, IEEE IHCI'12 and IndiaHCI'15.
- Participated in Tizen Developer Summit, 30 - 31 July, 2015, Bangalore.
- ACM Student Member since September 2015. Membership Number is 1649658.
- Research talk on "Recent Advances in Text Entry Mechanisms: From Mobile Device to Wearable Device" at 6th Research Scholars' Day, 2015, SIT, IIT Kharagpur.
- Former Secretary of Information Technology Departmental Society (ITDS) Club, School of Information Technology, IIT Kharagpur.