

## 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<sup>th</sup> 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<sup>th</sup> 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<sup>th</sup> 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<sup>th</sup> 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 10<sup>th</sup> 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 6<sup>th</sup> Research Scholars' Day, 2015, SIT, IIT Kharagpur.
- Former Secretary of Information Technology Departmental Society (ITDS) Club, School of Information Technology, IIT Kharagpur.