Rajkumar Darbar

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Education

2017–2020 **Ph.D. Student**, *POTIOC Team, INRIA Bordeaux, France.*

2013–2016 **MS (By Research)**, *Department of Computer Science and Engineering, Indian Institute of Technology Kharagpur, India.*
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.*
Specialization: Information Technology

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, Virtual Reality, Augmented Reality

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 10th Nordic Conference on Human-Computer Interaction (NordiCHI 2018), 1 - 3 October, 2018, Oslo, Norway.

[2] Sanjay Ghosh, Joy Bose, **Rajkumar Darbar**, and Punyashlok Dash, "Touch Shadow Interaction and Continuous Directional User Interface for Smartphone", In Proceedings of the 16th IFIP International Conference on Human-Computer Interaction (INTERACT 2017), 25 - 29 September, 2017, IDC, IIT Bombay, India.

[3] **Rajkumar Darbar**, Prasanta Kr. Sen, Debasis Samanta, "PressTact: Side Pressure-Based Input for Smartwatch Interaction", In Proceedings of 34th ACM CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI-LBW 2016), 7 - 12 May, 2016, San Jose, CA, USA.

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

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

[6] **Rajkumar Darbar**, Punyashlok Dash, Debasis Samanta, "ETAO Keyboard: Text Input Technique on Smartwatches", In 7th IEEE International conference on Intelligent Human Computer Interaction (IHCI 2015), 14 - 16 Dec, 2015, IIIT Allahabad, India.

Technical Skills

C++, Android, Unity, 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 UIST' 18, MobileHCI' 18.
- Participated in SIGCHI Summer School on Research Methods and Approaches to Text Entry and Other Interaction Techniques, May 21 - 25, 2018, IIT Bombay, India.
- Participated in Tizen Developer Summit, 30 - 31 July, 2015, Bangalore.
- ACM Student Member since September 2015. Membership Number is 1649658.