

Shivam Verma – CV

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Education **BITS Pilani, Goa Campus, India** '09 - '13
MSc (Tech) Information Systems
Bachelor's Thesis : "Indoor Navigation Using Virtual Walks"

- Publications**
- C1. **S. Verma**, D. Carlson, and D. S. Rosenblum, "DynamixVR: Blending Rich Physical Interaction Capabilities with Web Based Virtual Reality Experiences" *under review*
- C2. **S. Verma**, D. Carlson, and D. S. Rosenblum, "DynamixVR: Towards Truly Immersive Virtual Reality Experiences on the Web", accepted in *Proc. IEEE Virtual Reality (VR 2017)*, Poster Track, Los Angeles, CA, USA, Mar. 2017
- C3. **S. Verma**, R. Omanwar, Sreejith V. and Meera GS, "A Smartphone Based Indoor Navigation System", *Proc. 28th IEEE Int'l Conf. on Microelectronics (ICM 2016)*, Cairo, Egypt, Dec. 2016, pp. 345-348
- C4. D. Carlson, M. Mögerle, M. Pagel, **S. Verma**, and D. S. Rosenblum, "Ambient flow: A visual approach for remixing the Internet of Things", *Proc. 5th Int'l Conf. on Internet of Things (IoT 2015)*, IEEE, Seoul, South Korea, Oct. 2015, pp. 114-121
- C5. D. Carlson, M. Mögerle, M. Pagel, **S. Verma**, and D. S. Rosenblum, "A Visual Design Toolset for Drag-and-drop Smart Space Configuration" *Proc. 5th Int'l Conf. on Internet of Things (IoT 2015)*, Demo Track, IEEE, Seoul, South Korea, Oct. 2015, pp. 193-194. (**Best Demo Award**)

Research Experience **National University of Singapore** Jun '14 - present
Research Assistant, Felicitous Computing Institute

- Ambient Dynamix Project
 - DynamixVR : Developed an open source framework for blending IoT based sensing and interaction capabilities with Web-based Virtual Reality Applications.
 - Dynamix Dashboard : Designed and developed a Web-based smart space sharing tool which enables home owners to easily configure access levels for their IoT devices and share device controls without the need of any pre-installed software on guest devices.
 - Designed and developed QR Code and NFC based pairing mechanisms for the Ambient Dynamix SDKs, enabling remote clients to seamlessly setup a secure, encrypted communication channel with any Dynamix device.
 - Developed the Python and JavaScript SDKs for the Ambient Dynamix Framework. The SDKs enable desktop, web and mobile applications to interact with their physical environment using an Android device's sensing and communication capabilities.
 - Updated the Dynamix framework to use a Gradle based build system. The build system also enables core framework developers to easily build and export the Plug-in and Application development SDKs.
 - Redesigned and developed the user interface for the Ambient Dynamix Android application.
- Dengue Mapper Project
 - Developed an application on the Android platform for analyzing the movement patterns of a hundred dengue patients along with a hundred control users in Singapore. The study aims to guide control measures which could be carried out to reduce the incidences of mosquito breeding and dengue infection in Singapore.

Work Experience	The Privly Foundation Maintainer, Privly-Android Project - Develop and maintain the open source Android client for Privly. The application enables users to share encrypted digital content via user-controlled hyperlinks.	<i>Sep '13 - present</i>
	Teewe Software Engineer - Worked on the Teewe Android Application which enables users to play media content on their television sets over WiFi (50,000+ Downloads on Google Play Store)	<i>Dec '13 - May '14</i>
	Google Summer of Code - 2013 JavaScript and Android Developer - Developed a runtime environment for JavaScript based cryptographic applications on the Android platform. - Enabled users to create new encrypted content using the PlainPost and ZeroBin applications and share it on an online service of their choice. - Integrated PlainPost and ZeroBin reading applications to read secure content from users' connected social networks.	<i>May - Sep '13</i>
Leadership Positions	- Sub Org-Admin, The Privly Foundation, Google Summer of Code - 2015 - Mentor, The Privly Foundation, Google Summer of Code - 2014 - Teaching Assistant, Software Development for Portable Devices(CSIS C314), BITS Pilani, Goa Campus (Aug - Dec 2012)	
Awards and Honors	- Best Demo Award, 5th Int'l Conference on Internet of Things, Seoul, South Korea. October 2015. - Selected for the prestigious Google Summer of Code Program, 2013. - Best Business Report, Western Finals - India, CIMA Global Business Challenge. - Winner - State level Android Hackathon, Google Technology Users Group, Goa, India. - Felicitated by Hindustan Times, a leading Indian national daily, for exceptional academic performance in ICSE Examinations.	
Talks	- FOSSAsia 2016, Singapore - Ambient Dynamix - Adaptive gateway to IoT. - FOSSAsia 2015, Singapore - Controlling your digital life with Privly.	
Referees	David Rosenblum Provost's Chair Professor School of Computing National University of Singapore Email : david@comp.nus.edu.sg	Darren Carlson Assistant Professor Department of Electrical Engineering University of Hawaii at Manoa Email : darrenca@hawaii.edu
	Sean McGregor President and Lead Developer The Privly Foundation Email : privly@privly.org	Sreejith V Lecturer, Department of CS and IS BITS Pilani, Goa Campus Email : srev@goa.bits-pilani.ac.in