

Sunny Sanyal

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Education

09/2016-06/2019	Chongqing University of Posts and Telecommunications , P.R. China Candidate for Master of Engineering in Communication and Information Systems Recipient of Chinese Government Scholarship 2016-19 (<i>nominated by Indian ministry</i>) Dissertation: Data Aggregation techniques in Internet of Things (<i>expected</i>) GPA: 3.94/4 (<i>Coursework</i>) Advisor: Prof. Wu Dapeng [google scholar]
08/2011-07/2015	Maulana Abul Kalam Azad University of Technology , India (Formerly known as West Bengal University of Technology, India) Bachelor of Technology in Electronics and Communication Engineering DGPA: 8.23/10 Advisor: Prof. Arun Kumar Mandal

Experience

The Key Laboratory of Ubiquitous Sensing and Networking in Chongqing, P.R. China 10/2016-present
(established and managed by the provincial government of Chongqing)

Graduate research student
Collaborators: Prof. Wu Dapeng, Dr. Zhang Puning, Yan Junjie, [Boubakr Nour](#)

- Worked on four projects jointly funded by NNSF, China and the provincial government of Chongqing
- Approaches used: cluster formation, Bayesian rough sets, subspace tracking and estimation, federated filtering, LSTM encoder decoder architecture

Tech Mahindra Limited, Hyderabad, India 08/2015-08/2016
Associate software engineer

- Worked within the offshore team to develop a website for [ACRA](#) government of Singapore
- Training and implementation: Oracle ADF, basic java, SQL

Tronix India company, Kolkata, India 2013-2015
Co-founder and Manager

- Developed prototypes, raised funds, held meetings with investors
- Participated in Industrial India trade fair 2014 as a company and received 700+ visitor's feedbacks

Indian Statistical Institute, Computer Vision and Pattern Recognition Lab, India 07/2014-08/2014
Summer Internship, Advisor: Dr. Sarbani Palit [[homepage](#)]

- Developed a matlab based automatic video detection algorithm

Tezpur University, Computer Science Department, India 06/2014-07/14
Research Internship, Advisor: Dr. B. Bora [[google scholar](#)]

- Designed and simulated a digital image filter for noise removal in grey scale images [[report](#)]

Peer-Reviewed Publications

- Sunny Sanyal**, Dapeng Wu, Boubakr Nour, "A Federated Filtering Framework for Internet of Medical Things", IEEE ICC 2019 conference, Shanghai, China, 20-24 May 2019. (**Accepted**)
- Sunny Sanyal**, Bin Zhou, Animesh, Jean Bosco, "DeepMines: A fog enabled prediction platform for underground coal mines", Project Report, IEEE ComSoc Student's Competition 2018. (**Honorary Mention**)
- Sunny Sanyal**, Puning Zhang, "Improving Quality of Data: IoT data aggregation using device to device communications", IEEE Access, Vol. 6, page. 1-11, Nov. 2018. [[link](#)]
- Sunny Sanyal**, Wu Dapeng, Junjie Yan, Xing Li, "Co-relative mobility based IoT data uploading using D2D communication", In Proc. of 10th EAI Mobimedia, Chongqing, China, 13-14 July 2017. [[link](#)]

- Dapeng Wu , Junjie Yan, **Sunny Sanyal**, Ruyan Wang, “Trust oriented partner selection in D2D cooperative communications”, IEEE Access, Vol. 5, page. 3444-3453, February 2017. [[link](#)]
- Simpy Sanyal , **Sunny Sanyal**, “Exhilaration of Fuel Economy via Genetic Algorithm”, Indian Centre for Advanced Scientific and Technological Research journal of engineering, Vol. 8, No. 2(2015), May 2015. [[link](#)]
- **Sunny Sanyal** , Simpy Sanyal, “Automatic switching of home appliances one sensor to many system approach”, In Proc. of 6th IEEE Power India International Conference, Delhi, India, 6th Dec 2014. [[link](#)]
- "Advanced Deep Neural Networks at the Edge of IoT", with Prof. Hassine Mounbla (Paris Descartes University, France), Boubakr Nour (Beijing Institute of Technology, China). In preparation for IEEE Network.

Patent

- Patent filed “Communication System for dumb (Dumb Shirt)” Application ID: 400/KOL/2015. [[link](#)]

Selected Academic Distinctions

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| • Honorary Mention in IEEE ComSoc Student’s Competition 2018 | 11/2018 |
| • Selected by the Indian ministry of education (MHRD) for the prestigious Chinese Government Scholarship with a round trip travel grant. | 2016-2019 |
| • Selected for IEEE summer school 2018 with IEEE accommodation grant | 06/2018 |
| • Secured 2 nd position in national level embedded systems design contest at ‘KSHITIJ-2013’, Indian Institute of Technology [link] | 02/2013 |
| • Offered conference travel grant to USA by Indian national academy of engineering | 11/2014 |
| • Secured 3 rd position in project idea competition, ‘E-nnovation’ | 07/2014 |
| • Received newspaper coverage for project Communication system for people with disability in speech | 04/2014 |
| • Secured 3 rd position in Project exhibition competition, ‘Inquivesta’ at Indian Institute of Science Education and Research, Kolkata | 02/2014 |
| • Best Paper award in inter university Paper presentation event, ‘Paridhi’, | 01/2014 |
| • Secured 2 nd position in technical project Idea competition,‘EXSORSA-2013’ | 03/2013 |

Professional services

- [IEEE Access](#) Journal. [reviewer]
- [IEEE International Conference on Communications](#): SAC E-Health Track, 2019, Shanghai, China. [reviewer]
- [ACM/SIGAPP Symposium On Applied Computing](#), 2019, Cyprus. [program committee]
- [IEEE International Conference on Emerging and Emerging Technologies](#), 2019, Lahore, Pakistan. [program committee]
- [EAI International conference on future access enablers of ubiquitous and intelligent infrastructure](#), 2019, Bulgaria. [TPC]
- [EAI International conference on ubiquitous communications and network computing](#), 2019, India. [publicity co-chair]
- [EAI International conference on innovations and interdisciplinary solutions for underserved areas](#), 2019, Egypt. [reviewer]

Membership: IEEE student member, IEEE Communications society, IEEE Internet of things community, IEEE young professionals, Quora Partner Program (by [invitation](#)), EAI member

Invited Talk: Global Youth Talk 2017, Chongqing, China [[video](#)][[certificate](#)]

University representative: Smart China Expo 2018: 5G forum, Chongqing, China

Entrepreneurship

- Co-founded a company and participated in product development, fund raising and international trade fair
- Invited to join Quora Partner Program
- Secured 2nd position in Belt and road business innovation challenge 2017 ,China
- Secured 2nd position in Scotia Bank data analytic Challenge 2016 hosted by Tech Mahindra, Canada
- Participated in ‘[Google start up weekend](#) 2015’ organized by [NASSCOM](#) at [IIM](#) Calcutta, India
- Participated in ‘[Innovation summit](#) 2015 industry meetup’ as a delegate, event organized by [CII](#), India

Skills and Interests

Computing: Matlab, Octave, SQL, Java (basic) || **Languages:** English, Chinese, Hindi, Bengali, Chhattisgarhi