

# SOMDIP DEY

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Google Scholar Profile & Citations: <http://scholar.google.co.uk/citations?user=KaCa2MgAAAAJ>

Personal Website: <http://somdipdey.co.uk>

## EDUCATION

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**University of Essex, UK** *2018 - Present*

**Ph.D.** in Computer Science and Electronic Engineering

Main Research Focus: **Energy Efficiency and Reliability of Computer Vision Applications on Heterogeneous Multi-Processor Systems-on-Chips**

**Stanford University, USA** *2018 - Present*

**Professional Education** in Advanced Computer Security

**University of Manchester, U.K.** *2013 - 2014*

**M.Sc.** in Advanced Computer Science with specialization in Computer Systems Engineering

**St. Xavier's College (Autonomous), Kolkata, India** *2009 - 2012*

**B.S. (Hons.)** in Computer Science with *First Class* degree

Minor in Physics, Mathematics, English Language, Bengali Language, Environmental Sciences

## RESEARCH INTERESTS

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Heterogeneous Multi-Processor Systems-on-Chips (MPSoCs), Computer Architecture, High Performance Computing, Computer Vision, Run-time Management of Computing Resources, Computer Security, Automation, Information Security and Privacy

## TECHNICAL STRENGTHS

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<b>Computer Languages</b>	C, C#, Java, Fortran (f90), CUDA Fortran, Python, Scala
<b>Web Technologies</b>	HTML, PHP, Javascript, CSS, ASP.NET, Python/Django, Wordpress
<b>Protocols &amp; APIs</b>	XML, JSON, Amazon Web Services, Google Vision API, Google Maps API, Bing Maps API, CUDA Programming for GPGPU
<b>Database Technologies</b>	MySQL (SQL, PL/SQL), Microsoft SQL Server (SQL, Stored Procedures), SQL Server Reporting Services (SSRS)
<b>Mobile Technology</b>	Android (Native Apps.), Windows Phone (Native Apps.)
<b>Unix Tools</b>	Vim, Emacs
<b>Testing</b>	NUnit, JUnit
<b>C. I. Tools</b>	Travis CI, Codeship
<b>Version Control</b>	Git, Team Foundation Server
<b>Documentation</b>	LaTeX, Microsoft Office
<b>OS</b>	Windows, UNIX (LINUX), MAC OS X
<b>Proficient in</b>	C#, .NET (Framework), Android (Native)/Java & Web Development

Some of my free-to-use codes are available on **GitHub**: <https://github.com/somdipdey>

Some Microsoft technology related technical articles are available on **MSDN Profile**: <https://social.msdn.microsoft.com/Profile/somdip%20dey%20-%20msp%20alumnus>

**Stack Overflow Profile**: <https://stackoverflow.com/users/4190159/somdip-dey?tab=profile>  
*Top 10% for answers in C# technology & 20% for .Net technology on Stack Overflow.*

**NuGet Packages**: <https://www.nuget.org/profiles/somdipdey>

**Sourceforge Projects**: <https://sourceforge.net/u/somdipdey/profile>

## SELECTED INDUSTRIAL EXPERIENCE

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### **ReMe Basket Ltd., U.K.**

*Lead Android Developer & Founder*

May, 2017 - May, 2018

*Manchester, U.K.*

- Invented, designed and developed ReMe Basket android app, the flagship product of the company, which is designed to reduce food waste at home by reminding the user of expiry date of edibles and suggesting intelligent recipes

### **Steanne Solutions Ltd.**

*Software Development Engineer*

September, 2014 - February, 2018

*Manchester, U.K.*

- Enhanced and developed new data-driven applications & software in Windows Environment using C# (.NET Framework), Microsoft SQL Server 2008, 2012, 2014 & 2016 databases, Web Communication Services and batch script in an Agile Environment
- Development and enhancement work on the flagship product of the company have led to revenue generation of 200,000 GBP / year
- All products developed follow BDD development process in an Agile environment
- Every piece of code is tested (Unit Testing & Integration Testing) for quality assurance

### **Codeepy U.K. Pvt Ltd.**

*Lead .Net Developer & Founder*

October, 2014 - May, 2018

*Manchester, U.K.*

- Co-developed a web platform, which makes it easier for international students to find the right career in U.K. easily. This application will provide comprehensive solution from searching and securing a job to work visa application.
- Designed and co-developed world's first crowd food sharing platform, SHARE.IT, to share leftovers effectively with those in needs and won an international award for the contribution
- Generated funding of £1.8 million by the end of Series B

## SELECTED ACADEMIC EXPERIENCE

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### **The University of Essex**

*Graduate Teaching Assistant*

October, 2018 - Present

*Colchester, U.K.*

- Teaching "Introduction to Databases" (CE153) course to a class of 25 students.

### **The University of Essex**

*Graduate Laboratory Assistant*

October, 2018 - Present

*Colchester, U.K.*

- Aiding a class of 25 students in practical laboratory for "Introduction to Databases" (CE153) course.

### **The University of Essex**

*Research Officer (Scientist)*

August, 2018 - Present

*Colchester, U.K.*

- Exploring multi-variate empirical mode decomposition for anomaly detection in Big Data domain.

### **ACM XRDS (Crossroads) Magazine**

*Department Editor*

Summer 2014 - December, 2015

*New York, USA*

- Selecting, editing and writing Articles for ACM XRDS (Crossroads) Magazine, which is read by millions of readers world wide and is the most popular magazine among Computer Science students.
- Had published several articles which have most accumulated downloads among all the articles in that department in the history of the magazine.

### **IEEE Standards Association (IEEE - SA)**

*Member of Revision Committee of WG P1680.1*

Nov, 2013 - December, 2017

*Piscataway, NJ, USA*

- Revising and updating the technical standard on "Standard for Environmental Assessment of Personal Computer Products"
- Member of Energy Efficiency (EE) Sub-group revising the part on energy efficiency of personal computer products, and member of End of Life (EOL) Sub-group revising the part on the life cycle and life-time of different components of personal computer products
- Collaborating internationally to work with the group

**IEEE Standards Association (IEEE - SA)**

2012 - December, 2017

*Member of Revision Committee & Team Lead of sub-group of WG P23026* Piscataway, NJ, USA

- Revising and updating the technical standard on "Systems and Software Engineering - Engineering and management of websites for systems, software, and services information"
- Team Lead of the sub-group revising the section on implementation of Java in web-applications/software
- Also revised the section on 'Testing and Validation of Websites' along with other team members
- Collaborated internationally to work with the group

**St. Xavier's Computer Center, Kolkata**

Feb - Oct, 2012

*Teaching & Research Associate*

*Kolkata, India*

- Used to evaluate course-works of more than 50 students in each class of MCA (Master of Computer Application) course
- Assisted in teaching of Linux Shell programming and C programming language in the laboratory to more than 50 students in each class
- Assisted in research work in the field of Information and Computer Security
- Published and presented more than 25 research works in peer-reviewed international conferences and journals in one year

**OTHER SELECTED INDUSTRIAL WORK EXPERIENCE**

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**IT Services, The University of Manchester**

May-June, 2014

*IT Support Analyst at Personal Devices Support Desk*

*Manchester, U.K.*

- Provided technical solutions to issues in personal devices of students and users of the University
- Introduced the 'line of support' working style in the organization
- Used to deal with more than 20 customers and more than 20 devices on an average day

**The Careers & Employability Division, The University of Manchester** Fall 2013 - Fall 2014

*Fair Assistant & Fairs Registration Assistant*

*Manchester, U.K.*

- Assisted in the following fairs: The Graduate Recruitment Fair, The Postgraduate Study Fair, The Engineering, Science & Technology Fair, The Ethnic Diversity Fair
- Helped the exhibitors attending the conference with their needs
- Managed more than 500 attendees in each fair along with my co-workers

**ThinkLABS, SINE, IIT Bombay**

Jan - Feb, 2013

*Intern on 'Mobile Robotics'*

*Mumbai, India*

- Developed a mini-robot running on Atmega 32-bit micro-controller, which can detect the threat of fire and respond to the threat
- Gained experience in various Robotics' design patterns and in swarm Robotics

**Rooprug, Kolkata**

Jan, 2012 - June, 2013

*Technical Manager & Foreign Affairs Officer*

*Kolkata, India*

- Used to provide technical direction regarding machine operation to the workers (3-4 in a team) of the Production Department

- Represented as the Foreign Affairs Officer of the company at North American Bengali Conference 2012, Las Vegas, Nevada, USA to expand the business of the company overseas

## SELECTED PUBLICATIONS AND PAPERS

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Research Profile available at **Google Scholar**: <http://scholar.google.co.uk/citations?user=KaCa2MgAAAAJ>

**ResearchGate Profile**: [https://www.researchgate.net/profile/Somdip\\_Dey](https://www.researchgate.net/profile/Somdip_Dey)

### 2018

- Samuel Isuwa, Somdip Dey, Amit Kumar Singh and Klaus McDonald-Maier, “TEEM: Online Thermal- and Energy-EfficiencyManagement on CPU-GPU MPSoCs”, 2019 Design, Automation, and Test in Europe (DATE), 2019. (**Under review**)
- Somdip Dey, Amit Kumar Singh and Klaus McDonald-Maier, “IRON-MAN: Integrated RatiONal Prediction and Motionless ANalysis Using CNN in MPSoC”, 2019 Design, Automation, and Test in Europe (DATE), 2019. (**Under review**)
- Somdip Dey, Amit Kumar Singh, Xiaohang Wang and Klaus McDonald-Maier, “DeadPool: Performance Deadline Based FrequencyPooling and Thermal Management Agent in DVFS Enabled MPSoCs”, 2019 Design, Automation, and Test in Europe (DATE), 2019. (**Under review**)
- Somdip Dey, Amit Kumar Singh, Xiaohang Wang and Klaus McDonald-Maier, “DATE: Defense Against TEMperature Side-Channel Attacks in DVFS Enabled MPSoCs”, 2019 Design, Automation, and Test in Europe (DATE), 2019. (**Under review**)
- Somdip Dey, Sangeet Saha, Xiaohang Wang, Amit Kumar Singh and Klaus McDonald-Maier, “RewardProfiler: A Reward Based Design Space Profiler on DVFS Enabled MPSoCs”, European Conference on Computer Systems (Eurosys 2019), 2019. (**Under review**)
- Somdip Dey, Enrique Zaragoza Guajardo, Karunakar Reddy Basireddy, Amit Kumar Singh and Klaus McDonald-Maier, “EdgeCoolingMode: An Agent Based Thermal Management Mechanism for DVFS Enabled Heterogeneous MPSoCs”, The 32nd International Conference on VLSI Design and 18th International Conference on Embedded Systems, 2019.
- Somdip Dey, Grigorios Kalliatakis, Sangeet Saha, Amit Kumar Singh, Shoaib Ehsan, and Klaus McDonald-Maier. “MAT-CNN-SOPC: Motionless Analysis of Traffic Using Convolutional Neural Networks on System-On-a-Programmable-Chip”, 2018 NASA/ESA Conference on Adaptive Hardware and Systems (AHS 2018), 2018.
- Somdip Dey, “Securing Majority-Attack In Blockchain Using Machine Learning And Algorithmic Game Theory: A Proof of Work”, IEEE 10th Computer Science and Electronic Engineering Conference (CEEC), 2018.
- Somdip Dey, “A Proof of Work: Securing Majority-Attack in Blockchain Using Machine Learning and Algorithmic Game Theory ”, International Journal of Wireless and Microwave Technologies(IJWMT), Vol.8, No.5, pp. 1-9, 2018. DOI: 10.5815/ijwmt.2018.05.01

### 2014

- Tanaya Gopal, Madhuri Subbaraju, Rashmi vivek Joshi, Somdip Dey, “MAR(S)2: Methodology to Articulate the Requirements for Security In SCADA”, Proceedings of IEEE 2014 - Fourth International Conference on Innovative Computing Communication Technology (INTECH 2014), pp. 103-108.

- Somdip Dey, Mamatha S Nair. “Design and Implementation of a Simple Cache Simulator in Java to Investigate MESI and MOESI Coherency Protocols”. International Journal of Computer Applications 87(11): 6-13, February 2014. Published by Foundation of Computer Science, New York, USA.

## 2013

- Somdip Dey, Sriram S. Ayyar, SB Subin, P.K. Abdul Asis, “SD-IES: An Advanced Image Encryption Standard”, IEEE 2013 7th International Conference on Intelligent Systems and Control, Coimbatore, India, January 2013
- Somdip Dey, “New Generation of Digital Academic-Transcripts using encrypted QR Code™”, IEEE 2013 International Multi Conference on Automation, Computing, Control, Communication and Compressed Sensing (iMac4s 2013), Kerala, India, March 2013
- Somdip Dey, Shalabh Agarwal, Asoke Nath, “Confidential Encrypted Data Hiding and Retrieval Using QR Authentication System”, IEEE International Conference On Communication System and Network Technologies 2013 (CSNT-2013), Gwalior, India, April 2013

## 2012

- Somdip Dey, “SD-AREE: An Advanced Modified Caesar Cipher Method to Exclude Repetition from a Message”, International Journal of Information and Network Security (IJINS), Volume 1, Issue 2, pp. 67-76, 2012.
- Somdip Dey, Kalyan Mondal, Joyshree Nath, Asoke Nath, “Advanced Steganography Algorithm Using Randomized Intermediate QR Host Embedded With Any Encrypted Secret Message: ASA QR Algorithm”, IJMECS (International Journal on Modern Education and Computer Science), 2012.
- Somdip Dey, Joyshree Nath and Asoke Nath, “An Advanced Combined Symmetric Key Cryptographic Method using Bit Manipulation, Bit Reversal, Modified Caesar Cipher (SD-REE), DJSA method, TTJSA method: SJA-I Algorithm”, International Journal of Computer Applications 46 (20): 46-53, May 2012. Published by Foundation of Computer Science, New York, USA.
- Somdip Dey, Joyshree Nath, Asoke Nath, “An Integrated Symmetric Key Cryptographic Method Amalgamation of TTJSA Algorithm, Advanced Caesar Cipher Algorithm, Bit Rotation and Reversal Method: SJA Algorithm”, IJMECS, vol.4, no.5, pp.1-9, 2012.
- Somdip Dey, “SD-AREE-I Cipher: Amalgamation of Bit Manipulation, Modified VERNAM CIPHER & Modified Caesar Cipher (SD-AREE)”, IJMECS, vol.4, no.6, pp.43-49, 2012.
- Somdip Dey, “An Image Encryption Method: SD-Advanced Image Encryption Standard: SD-AIES”, International Journal of Cyber-Security and Digital Forensics (IJCSDF), Volume 1, Issue 2, pp. 82-88, 2012.
- Somdip Dey, “Amalgamation of Cyclic Bit Operation in SD-EI Image Encryption Method: An Advanced Version of SD-EI Method: SD-EI Ver-2”, International Journal of Cyber-Security and Digital Forensics (IJCSDF), Volume 1, Issue 3, pp. 221-225, 2012.
- Somdip Dey, “SD-EQR: A New Technique to Use QR Codes™ in Cryptography”, International Conference on Emerging Trends in Computer and Information Technology (ICETCIT 2012), Coimbatore, India, May 2012
- Somdip Dey, “SD-REE: A Cryptographic Method To Exclude Repetition From a Message”, The International Conference on Informatics & Applications (ICIA 2012), Kuala Terengganu, Malaysia, June 2012

- Somdip Dey, “SD-EI: A Cryptographic Technique To Encrypt Image”, IEEE 2012 International Conference on Cyber Security, Cyber Warfare and Digital Forensic (CyberSec2012), Kuala Lumpur, Malaysia, June 2012
- Somdip Dey, “SD-AEI: An Advanced Encryption Technique For Images”, IEEE 2012 Second International Conference on Digital Information Processing and Communications (ICDIPC2012), Klaipeda City, Lithuania, July 2012
- Somdip Dey, Joyshree Nath, Asoke Nath, “Modified Caesar Cipher method applied on Generalized Modified Vernam Cipher method with feedback, MSA method and NJJSA method: STJA Algorithm”, 8th International Conference on Foundations of Computer Science (FCS12), Las Vegas, USA, July 2012
- Somdip Dey, Joyshree Nath, Asoke Nath, “A New Technique to Hide Encrypted Data in QR Codes™”, 3th International Conference on Internet Computing (ICOMP12), Las Vegas, USA, July 2012
- Somdip Dey, “SD-MARC: A New Multi-Processor Architecture”, 12th International Conference on Computer Design (CDES12), Las Vegas, USA, July 2012
- Somdip Dey, “A New Technique to Use a Parallel Compiler for Multi- core Microcontrollers”, 12th International Conference on Computer Design (CDES12), Las Vegas, USA, July 2012
- Somdip Dey, “SD-AREE: A New Simple Cryptographic Method to Exclude Repetition from a Message to be Encrypted”, IEEE 2012 Third International Conference on Computing, Communication and Networking technologies (ICCCNT12), Karur, India, July 2012
- Somdip Dey, Asoke Nath, “Modern Encryption Standard (MES) version-I: An Advanced Cryptographic Method”, IEEE 2012 2nd World Congress on Information and Communication Technologies (WICT- 2012), Trivandrum, India, October 2012
- Somdip Dey, “SD-C1BBR: SD-Count-1-Byte-Bit Randomization: A New Advanced Cryptographic Randomization Technique”, IEEE 2012 2nd World Congress on Information and Communication Technologies (WICT- 2012), Trivandrum, India, October 2012

### **Dissertation cum Project for Master of Science**

2014

Title: “Efficient Data Input/Output (I/O) for Finite Difference Time Domain (FDTD) Computation on Graphics Processing Unit (GPU)”

### **Bachelor’s Dissertation cum Project**

2014

Title: “SXC-JACS: An E-Journal Management System”; Team size: 3

Objective was to build an online web application of a full-featured Journal Management System, where people can submit their article and papers for journals and manage the manuscripts in secured archives. The web application has all the features of a fully functional Manuscript and Journal Management Systems.

### **Magazine Articles**

Somdip Dey, 2014. “A beginner’s guide to computer science research”. ACM XRDS 20, 4 (June 2014), pp. 14-14. DOI=10.1145/2627954. <http://doi.acm.org/10.1145/2627954>

### **Poster Presentations**

- Somdip Dey, Amit Kumar Singh, Klaus McDonald-Maier, “Energy Efficiency and Reliability of Computer Vision Applications on Heterogeneous Multi-Processor Systems-on-Chips (MPSoCs)”, presented at MaRIONet Summer School, Glasgow, UK, 16-20th July, 2018.

- Somdip Dey, Amit Kumar Singh, Klaus McDonald-Maier, “Energy Efficiency and Reliability of Computer Vision Applications on Heterogeneous Multi-Processor Systems-on-Chips (MPSoCs)”, presented at Adaptive Many-Core Architectures and Systems workshop, York, UK, 13-15th June, 2018.
- Somdip Dey, Juncheng Li, Shaohsuan Cheng, “Web Scrapping: How Companies Can Use ‘Big-Data’ generated by Facebook?”, presented at IET Data Analytics held on 5th December, 2013 at IET, London, United Kingdom. Presentation video available at IET TV website: <http://scpro.streamuk.com/u>
- Somdip Dey, Sayak Sen, “Privacy Issues in Social Networking Websites: Is Facebook Revealing Our Social Life?”. Presented at Symposium on Information Security, Securing Networks, Devices and Applications 2013 (SIS SNDA 2013) held on 15th and 16th November, 2013 at BITS Pilani, Hyderabad, India.

## REVIEWER / MEMBER OF PROGRAM / EDITORIAL COMMITTEE

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### Journals

- ACM Transactions on Embedded Computing Systems (TECS)
- ACM Transactions on Computer Systems (TOCS)
- IEEE Embedded Systems Letters
- IEEE Technology and Engineering Education (ITEE)
- IEEE Transactions on Emerging Topics in Computing (TETC)
- The Journal of Supercomputing (Springer)
- TELKOMNIKA Indonesian Journal of Electrical Engineering
- International Journal of Distributed Sensor Networks
- International Journal of Information and Network Security (IJINS)
- International Journal of Computer Science and Information Security (IJCSIS)
- International Journal of Cyber-Security and Digital Forensics (IJCSDF)
- International Journal of Computers & Technology
- British Journal of Mathematics & Computer Science
- The Electronic Journal of e-Learning (EJEL)
- The Electronic Journal of Knowledge Management (EJKM)
- ACM XRDS (Crossroads) Magazine [**Department Editor**~2014-2015]

### Conferences

- 2019 – The 56th Design Automation Conference (DAC 2019)
- 2019 - IEEE International Symposium on Circuits and Systems (ISCAS 2019)
- 2019 – The 32nd International Conference on VLSI Design (VLSID 2019)
- IEEE – 2014 The 9th International Conference on Digital Information Management (ICDIM 2014)
- IEEE – 2014 Fourth International Conference on Innovative Computing Technology (INTECH 2014)

- IEEE – 2014 Third International Conference on Future Generation Communication Technologies (FGCT 2014)
- The International Conference on Computer Security and Digital Investigation (ComSec2014)
- The Third International Conference on Cyber Security, Cyber Warfare, and Digital Forensic (CyberSec2014)
- The International Conference on Digital Security and Forensics (DigitalSec2014)
- The International Conference on Information Security and Cyber Forensics (InfoSec 2014)
- The International Conference on Cyber-Crime Investigation and Digital Forensics (CyberForensics2014)
- PDPTA'14 – The 2014 International Conference on Parallel and Distributed Processing Techniques and Applications
- CDES'14 – The 2014 International Conference on Computer Design
- FCS'14 – The 2014 International Conference on Foundations of Computer Science
- ICOMP'14 – The 2014 International Conference on Internet Computing and Big Data
- BIOCOMP'14 – The 2014 International Conference on Bioinformatics & Computational Biology
- ICWN'14 – The 2014 International Conference on Wireless Networks
- FECS'14 – The 2014 International Conference on Frontiers in Education: Computer Science and Computer Engineering
- SERP'14 – The 2014 International Conference on Software Engineering Research and Practice
- IPCV'14 – The 2014 International Conference on Image Processing, Computer Vision, and Pattern Recognition
- IEEE – 2013 Fifth International Conference on Computational Intelligence and Communication Systems (CICN 2013)
- Second International Workshop on Advances in Data Management (ADM'13)
- IEEE Second International Conference on Advances in Computing, Communications and Informatics (ICACCI-2013)
- IEEE – 2013 20th International Conference on Telecommunications (ICT 2013)
- IEEE – 2013 The Second International Conference on Informatics & Applications (ICIA2013)
- IEEE – 2013 The Second International Conference on E-Learning and E-Technologies in Education (ICEEE2013)
- IEEE – 2013 The International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAEECE2013)
- IEEE – 2013 The International Conference on E-Technologies and Business on the Web (EBW2013)
- PDPTA'13 – The 2013 International Conference on Parallel and Distributed Processing Techniques and Applications
- CDES'13 – The 2013 International Conference on Computer Design
- FCS'13 – The 2013 International Conference on Foundations of Computer Science
- ICOMP'13 – The 2013 International Conference on Internet Computing and Big Data



- SWWS'13 – The 2013 International Conference on Semantic Web and Web Services
- EEE'13 – The 2013 International Conference on e-Learning, e-Business, Enterprise Information Systems, and e-Government
- BIOCOMP'13 – The 2013 International Conference on Bioinformatics & Computational Biology
- ICWN'13 – The 2013 International Conference on Wireless Networks
- FECS'13 – The 2013 International Conference on Frontiers in Education: Computer Science and Computer Engineering
- SERP'13 – The 2013 International Conference on Software Engineering Research and Practice
- IPCV'13 – The 2013 International Conference on Image Processing, Computer Vision, and Pattern Recognition
- 2013 The Second International Conference on Cyber Security, Cyber Warfare and Digital Forensic (CyberSec 2013)
- 2013 The Third International Conference on Digital Information Processing and Communications (ICDIPC 2013)
- IEEE – 2012 The International Conference on E-Learning and E-Technologies in Education (ICEEE 2012)
- IEEE – 2012 The Second International Conference on Digital Information Processing and Communications (ICDIPC 2012)
- IEEE – 2012 The International Conference on Cyber Security, Cyber Warfare and Digital Forensic (CyberSec 2012)
- IEEE – 2012 The Second International Conference on Digital Information and Communication Technology and its Applications (DICTAP 2012)

## **SELECTED PROFESSIONAL DEVELOPMENT**

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Regularly participate in several technical & managerial courses to keep myself updated as per industry standard around the world. Full list of Certifications and Courses taken can be found on my LinkedIn Profile.

- Certificate on “Java Programming: Solving Problems with Software” from Duke University & Coursera
- Certificate on “Programming Foundations with JavaScript, HTML and CSS (with Honors)” from Duke University & Coursera
- Certificate on “Java Programming: Principles of Software Design” from Duke University & Coursera
- Certificate on “PH125.1x: Data Science: R Basics” from Harvard University & edX
- Certificate on “PH125.2x: Data Science: Visualization” from Harvard University & edX
- Certificate on “CYBER501x: Cybersecurity Fundamentals” from Rochester Institute of Technology & edX
- Certificate on “Initiating and Planning Projects” from University of California, Irvine & Coursera
- Certificate on “Budgeting and Scheduling Projects” from University of California, Irvine & Coursera

- Certificate on “Managing Project Risks and Changes” from University of California, Irvine & Coursera

## **SELECTED AWARDS**

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- Awarded several Visual C# Technical Guru & Transact-SQL Technical Guru Awards by Microsoft TechNet for publishing quality technical articles on C# and T-SQL on Microsoft TechNet Wiki platform.
- Awarded several Microsoft TechNet Wiki’s Top Contributors Award for on going contributions to TechNet.
- Winner of the 3scale Prize at Koding’s Global Virtual Hackathon, 2014, for developing and implement- ing the world’s first crowd-fooding platform as part of Team Codeepy.
- Won the Course Rep of the Year: EPS award as part of the 2014 Student Union Awards of the University of Manchester.
- Won the Best Paper Award at IEEE 2012 Second International Conference on Digital Information Processing and Communications (ICDIPC2012) held at Klaipeda City, Lithuania, July 2012.
- Won the Best Student Paper Award at International Conference on Emerging Trends in Computer and Information Technology (ICETCIT 2012), held at Coimbatore, India, May 2012.

## **SELECTED GRANTS, FUNDING & SCHOLARSHIPS**

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- University of Essex, CSEE Doctoral Studentship
- University of East London, UEL Excellence Studentship. Winner of one of the nine fully funded Ph.D. studentship across 5 Departments. [Declined offer]
- Cranfield University, Cranfield Defence and Security PhD Studentship Award in Intrusion Detection Using Information Theoretic Feature Selection. [Declined offer]
- St. Xavier’s College (Autonomous), Kolkata, India, Department of Computer Science’s Grant on Computer & Information Security