Keynote I

Security and Privacy in Blended Systems

Professor Awais Rashid
School of Computing and Communications
Lancaster University
Lancaster, UK
a.rashid@lancaster.ac.uk

Abstract
Future software systems and services will see hitherto unprecedented connectivity. Innovations such as smart cities, Internet of Things (IoT), body-area networks, smart grids and wearable sensors will lead to software becoming socially embedded in the everyday lives of individuals, communities and organisations. Future environments will, therefore, be hyper-connected, highly open and regularly collect, process or disseminate massive amounts of data. The scale of connectivity and openness of future software systems and services would mean that system edges will not just bleed into each other but blend together in ways that can neither be established nor anticipated a-priori. In this talk, I will discuss the security and privacy challenges arising from such blended settings, their implications for future software systems and how software engineering research and practice can effectively respond to such challenges.

Speaker’s Bio
Professor Awais Rashid is Director of Security Lancaster Research Centre, one of the UK’s Academic Centres of Excellence in Cyber Security Research. He possesses an extensive multi-disciplinary background having worked at the boundary of computer science, social science and psychology for several years. He is particularly focused on sense-making of large, heterogeneous data sources and human factors in order to unravel impacts on cyber resilience of individuals, organisations and infrastructures. He developed novel digital persona analysis techniques to unravel the deception tactics deployed by sophisticated cyber criminals online. This work was selected as one of the 100 Big Ideas of the Future by Research Councils UK and Universities UK, influenced UK and European policy frameworks, is used in law enforcement applications and underpins commercial products through a spin-out company. He has also conducted research on analysis of large-scale networks including Internet-scale systems, techniques for open-source intelligence (OSINT) and the security and privacy issues pertaining to OSINT. He also researches novel techniques for detecting sophisticated social engineering attacks and socio-technical factors underpinning online group formation and behaviours. He also currently leads a project as part of the UK Research Institute on Trustworthy Industrial Control Systems – researching novel socio-technical metrics for studying and articulating cyber security risks in such environments.
The Nexus of Data Quality and Business Value

Professor Shazia Sadiq
School of Information Technology and Electrical Engineering
University of Queensland
Brisbane, Australia
shazia@itee.uq.edu.au

Abstract
The prevalence of large volumes of accessible data is profoundly changing the way business, government and individuals approach decision making. In spite of significant advances in storage and compute facilitates, the acceleration of time to value in big data projects often remains unacceptable due to the quality of the underlying data sets. Poor data quality is being termed as the dark side of big data, inhibiting the discovery and trust of new insights and foresights. In this talk I will discuss the changing nature of the data lifecycle and its implications for data quality management. I will also outline the research opportunities ahead that can enable effective use of big data in the presence of data quality issues.

Speaker’s Bio
Shazia Sadiq is currently working in the School of Information Technology and Electrical Engineering at The University of Queensland, Brisbane, Australia. She is part of the Data and Knowledge Engineering (DKE) research group and is involved in teaching and research in databases and information systems. Shazia holds a PhD from The University of Queensland in Information Systems and a Masters degree in Computer Science from the Asian Institute of Technology, Bangkok, Thailand. Her main research interests are innovative solutions for Business Information Systems that span several areas including business process management, governance, risk and compliance, and information quality and use. She has published over 100 peer-reviewed publications in high ranking journals such Information Systems Journal, VLDBJ, TKDE, as well as major conferences such as SIGMOD, ICDE, ER, BPM, ICIS and CAiSE. She has attracted in excess of $3.5million from the Australian Research Council and Industry in the past 10 years. Her influential works on declarative modelling of business processes are some of the highest cited works in the area and include an industry patent. Shazia is currently a board member of the International Association for Information and Data Quality Asia Pacific chapter, convener of the Queensland Data Quality Roundtable, Deputy chair of the National Commitee on Information and Communication Sciences at the Australian Academy of Science, and a University of Queensland Teaching Excellence Award Winner.
Keynote III

Big Data Disrupts, Except When It Doesn’t

Professor Babar Jan-Haleem
APAC Director
Big Data & Analytics Specialist Team, Oracle

Abstract
You could say that big data is nothing more than the capture and use of data in daily activities. So, given this mundane description, why is big data such a big deal? Behind this simple description is a much larger economic story: the rise of ‘data capital’. This term isn’t a metaphor. Data capital is as vital as financial capital to the development of new products and services. And like the power of financial capital, data capital both boosts and disrupts, and often not in the way you would have expected it to, as we have seen by the rise of the likes of Amazon, and more recently Uber. So does this mean a corporate apocalypse and the demise of the world’s largest enterprises? No. While data capital disrupts, it also doesn’t.

This talk will look at how to create a successful big data strategy, understand Big Data fundamentals and the essential elements needed in terms of people, processes and technologies, to datafy or digitize your business to get to where the real value is; data capital!

Speaker’s Bio
Babar Jan-Haleem heads the APAC Big Data & Analytics Specialist Team responsible for driving Oracle Big Data Solution initiatives across Asia-Pacific region. His professional experience is in Data-warehousing & Analytics field for over 17 years in United States of America & Asia-Pacific and has a working knowledge of a broad range of Analytics solution offerings, both Oracle and non Oracle. Prior to joining Oracle, Babar provided technical consulting expertise to fortune 40 accounts in the US in Data-warehousing & Analytics arena thus has a deep technical architecture background with focus on the business outcome. He is passionate about Big Data & Data-warehousing initiatives and sees immense value they bring to all organizations. His undergraduate and MBA studies in the US are in Information Systems and Mathematics.

In his role, Babar maintains a close working relationship with Oracle HQ development & product management organizations giving him direct insight into Oracle’s product roadmap & strategy and inner workings of Oracle solutions. He is a strategic thinker with the ability to clearly articulate long term strategies for organizations embarking on strategic BIDW & Big Data initiatives while overcoming mission critical challenges.