

Agenda

Microsoft Research Asia Faculty Summit 2012
October 26–27, 2012 | Tianjin, China

Friday, October 26, 2012

Time	Event/Topic	Location
8:00–9:00	Registration	Shiing-shen Building, Nankai University
9:00–9:05	Welcome and Introduction Speaker: Lolan Song , senior director, Microsoft Research Asia Lolan Song welcomes participants to the Asia Faculty Summit with an overview of the program. During the summit—which was organized in partnership with Nankai University and Tianjin University—leading academic researchers, educators, and Microsoft researchers will examine topics related to the theme, “Advancing Research and Education.” Keynotes, panel sessions, and breakout sessions will include discussions about recent advancements in computing research and future educational trends that are resulting in tools and methodologies to help solve real-world problems in many social and scientific areas.	Lecture Hall 2, Shiing-shen Building, Nankai University
9:05–9:10	Opening Remarks Speaker: Rick Rashid , chief research officer, Microsoft Research	
9:10–9:50	Keynote: Microsoft Research Asia Update Speaker: Hsiao-Wuen Hon , managing director, Microsoft Research Asia Since its founding in 1998, Microsoft Research Asia has grown and expanded into new areas of research by focusing on recruiting great people and creating a culture in which they can thrive. In addition, working closely with professors and students from academic institutions across the Asia Pacific region has been a key factor in Microsoft Research Asia’s success over the years. In this talk, I will provide an update on Microsoft Research Asia’s research areas and recent research. I will also discuss some projects that showcase the lab’s work in a wide	

Time	Event/Topic	Location
	array of disciplines.	
9:50–10:40	<p>Keynote: Predictions, Decisions, and Intelligence in the Open World Speaker: Eric Horvitz, distinguished scientist and deputy managing director, Microsoft Research</p> <p>Representations of probability and utility lay at the heart of a two-decade rolling revolution in machine learning and intelligence. A confluence of advances has led to an inflection in our ability to collect, store, and harness large amounts of data for generating insights and guiding decision making in the open world. Beyond study and refinement of principles, fielding real-world systems is critical for testing the sufficiency of algorithms and implications of assumptions—and exploring the human dimension of computational solutions and services. I will discuss efforts on learning and inference, highlighting key ideas in the context of projects in transportation, healthcare, and citizen science. Then, I will describe the composition of integrative solutions that draw upon a symphony of skills and that operate over extended periods of time.</p>	
10:40–11:00	Break and Group Photo	
11:00–11:45	<p>Keynote: Computational Thinking Speaker: Jeannette M. Wing, head of the Computer Science Department, Carnegie Mellon University</p> <p>Computational thinking will be a fundamental skill used by everyone in the world. To reading, writing, and arithmetic, we should add computational thinking to every child's analytical ability. Computational thinking involves solving problems, designing systems, and understanding human behavior by drawing on the concepts that are fundamental to computer science. Thinking like a computer scientist means more than being able to program a computer. It requires the ability to abstract and thus to think at multiple levels of abstraction. In this talk, I will give many examples of computational thinking, argue that it has already influenced other disciplines, and promote the idea that teaching computational thinking can not only inspire future generations to enter the field of computer</p>	

Time	Event/Topic	Location
	<p>science but benefit people in all fields.</p>	
<p>11:45–12:30</p>	<p>Keynote: Human Computer Interaction Research at Microsoft Research Asia Speaker: Hong Tan, senior researcher, Microsoft Research Asia</p> <p>In the Human Computer Interaction group at Microsoft Research Asia, we are conducting cutting-edge research on new interaction technologies and paradigms for the next generation of natural user interfaces, using a wide range of sensors and displays. For example, our researchers and designers have created projected creatures that interact with a user and objects in the environment, phone-based language-learning modules that encourage “micro-learning” on the go, wearable sensors that monitor a user’s daily activities such as eating and laughing, phone-to-phone games for enhanced social interactions, and new platforms for authoring, rehearsing, and delivering presentations. Empowering the user with additional touch-based feedback is a new thrust of our research agenda. This talk will showcase the many exciting projects we work on, providing the audience a glimpse into the future of human computer interactions.</p>	
<p>12:30–13:30</p>	<p>Lunch</p>	
<p>13:30–15:00</p>	<p>Panel: The Edu-Tech Tsunami: Scaling from 100 to 100,000 Chair: Anoop Gupta, distinguished scientist, Microsoft Research</p> <p>Panelists: Andrew Ng, co-founder, Coursera Candace Thille, director of the Open Learning Initiative, Carnegie Mellon University Zongkai Yang, president, Central China Normal University</p> <p>There has been immense recent interest around the transformational potential of online learning. The promise: quality education for everyone, everywhere, affordably. Massive Online Open Courses (MOOCs) offered by Stanford, MIT, and other major universities have had enrollments of 100,000 or more students with 10,000 or more completing the courses. Both for-profit and non-profit start-ups have emerged and are forging rapidly ahead, for example, Coursera from Stanford,</p>	

Time	Event/Topic	Location
	<p>Udacity from Stanford, EdX from MIT-Harvard, and Khan Academy.</p> <p>Is this excitement just another hype bubble or is technology finally ready to transform education, just as it has transformed and disrupted numerous other aspects of our life? There is considerable optimism that, this time, it is for real. Factors include ubiquitous affordable devices and connectivity, a generation of digital natives, novel pedagogic insights that take advantage of technology for personalized and improved learning outcomes, technology enabling scale to reach students everywhere more affordably, rising costs of education, and associated social and economic pressures. As Thomas Friedman from <i>The New York Times</i> recently put it, "Big breakthroughs happen when what is suddenly possible meets what is desperately necessary."</p> <p>We invite you to this panel to hear directly from the people who are leading this transformation as a highlight of this year's tenth Asia Faculty Summit. The panel will be chaired by Anoop Gupta, distinguished scientist at Microsoft Research.</p>	
15:00–15:20	Break	
15:20–16:30	<p>Panel: Research Directions and Funding Mechanisms Chair: Weiping Li, dean, School of Information Science and Technology, University of Science and Technology China</p> <p>Panelists: Peter Lee, corporate vice president, Microsoft Research Redmond Jeannette M. Wing, president's professor of Computer Science and department head, Carnegie Mellon University Zhaotian Zhang, deputy director general, National Natural Science Foundation of China</p> <p>What possible paradigm shifts and disruptive computer science research directions are anticipated over the next five to ten years? Will we see research interests evolve in response to funding opportunities, or funding patterns mirror emerging research? Which model will most inspire innovation? How can researchers help balance national strategic priorities with general research interests? What are the best practices from around the Asia-Pacific region? In a discussion that includes</p>	

Time	Event/Topic	Location
	both a broad global view and examination of country-specific practices, this panel session of experts and thought leaders will explore pressing questions that relate to the dynamic symbiosis between research development and funding, based on individual experience and insight.	
16:30–17:40	<p>Panel: World-Class Universities and Talent Chair: Baining Guo, assistant managing director, Microsoft Research Asia</p> <p>Panelists: Ke Gong, president, Nankai University John Hopcroft, Turing Award recipient, professor, Cornell University Michael I. Jordan, Pehong Chen Distinguished Professor, University of California, Berkeley Jie Zhang, president, Shanghai Jiao Tong University</p> <p>How must world-class universities evolve to help students meet the challenges of the twenty-first century? What critical skill sets and characteristics will be in demand in the future? What is required, other than high-quality research, teaching, and infrastructure? Baining Guo will lead a panel of experts with more than 100 years of combined educational experience for an illuminating discussion.</p>	
17:40–18:00	<p>Microsoft Research Connections and Closing Remarks Speaker: Tony Hey, vice president, Microsoft Research Connections</p>	
18:00–18:30	Transit to banquet	
18:30–20:00	Banquet	St. Regis Hotel
20:15–21:30	Cruise on Haihe River (optional)	

Saturday, October 27, 2012

Time	Event/Topic	Location
8:00–9:00	Registration	Shiing-shen Building, Nankai

Time	Event/Topic	Location
		University
9:00–12:40	Breakout Sessions	
	<p>Kinect for Windows Chairs: Baining Guo, Microsoft Research Asia; Miran Lee, Microsoft Research Asia; Guobin Wu, Microsoft Research Asia</p> <p>Speakers: Michael Brown, National University of Singapore Xiang Cao, Microsoft Research Asia Xilin Chen, Chinese Academy of Sciences Hong-Goo Kang, Yonsei University Seungyong Lee, Pohang University of Science and Technology Ligang Liu, University of Science and Technology of China Xiangshi Ren, Kochi University of Technology Itiro Siio, Ochanomizu University Stewart Tansley, Microsoft Research Yichen Wei, Microsoft Research Asia</p> <p>Kinect for Windows offers the potential to transform how people interact with computers and Windows-embedded devices in multiple industries, including education, healthcare, transportation, and beyond.</p> <p>In this session, we will bring together researchers from related disciplines to share insights, opinions, and experiences related to the applied technologies of Kinect for Windows and explore the following:</p> <ul style="list-style-type: none"> • Kinect-based object digitization • Kinect-based HCI application • Sign language recognition and translation • Visualized language-free communication system • Recognition of virtual handwritten characters • Capturing human models 	Lecture Hall 2, Shiing-shen Building, Nankai University
	<p>Applied Technology of Mobile Computing Chairs: Eric Chang, Microsoft Research Asia; Heidi Fu, Microsoft Research Asia Speakers: Polly Huang, National Taiwan University Nic Lane, Microsoft Research Asia</p>	Room 215, Shiing-shen Building, Nankai University

Time	Event/Topic	Location
	<p> Junewha Song, Korea Advanced Institute of Science and Technology Hideyuki Tokuda, Keio University Xing Xie, Microsoft Research Asia Zhiwen Yu, Northwest Polytechnic University </p> <p> Mobile computing is profoundly impacting all aspects of our daily lives—and opening previously unimagined possibilities. As more sensors are integrated into modern mobile devices, the real-time data generated with human interactions is reforming research, fueling development of a smart, green ecosystem, and empowering individuals with increased knowledge and information. </p> <p> In this session, we will bring together researchers from related disciplines to share their insights, opinions, and experiences related to the applied technologies of mobile computing and explore the following: </p> <ul style="list-style-type: none"> • Cloud computing and big data • Context awareness—building intelligence from the physical world • Novel applications based on mobile sensing systems and technologies • People-centric sensing applications and systems • Linking energy to human behavior—activity-level energy metering • Crowdsourcing-based transportation monitoring 	
	<p> Cloud Futures Chairs: Dennis Gannon, Microsoft Research; Steve Yamashiro, Microsoft Research Asia Speakers: Joe Chou, China Cloud Innovation Center, Microsoft (China) Co., Ltd Dennis Gannon, Microsoft Research Daisuke Kawahara, Kyoto University Li-Chun Wang, National Chiao Tung University Yuanchun Zhou, Chinese Academy of Sciences Hengming Zou, Shanghai Jiao Tong University </p> <p> Cloud computing is an exciting platform for research and education. It has already advanced scientific and technological progress by making data and computing resources available at </p>	<p> Room 203, Shiing-shen Building, Nankai University </p>

Time	Event/Topic	Location
	<p>unprecedented economy of scale. To realize the full promise of cloud computing for research and education, however, we must think about the cloud as a holistic platform for creating new services, new experiences, and new methods to pursue research and teaching.</p> <p>This session will highlight recent topics in cloud computing and explore how new techniques and methods of research may solve distinct challenges arising in diverse areas, including computer science, engineering, earth sciences, healthcare, humanities, interactive games, life sciences, and social sciences.</p>	
	<p>Advancing the Next Generation of Researchers Chairs: Xin Ma, Microsoft Research Asia; Ming Zhou, Microsoft Research Asia Speakers: Zide Du, China Computer Federation Steven C.H. Hoi, Nanyang Technological University Youn-kyung Lim, Korea Advanced Institute of Science and Technology Yi Ma, Microsoft Research Asia Lolan Song, Microsoft Research Asia Ya-Yunn Su, National Taiwan University Eijiro Sumii, Tohoku University Wenping Wang, The University of Hong Kong Xiaoru Yuan, Peking University Ming Zhou, Microsoft Research Asia Jun Zhu, Tsinghua University</p> <p>In the current age of ubiquitous and cloud computing, the computer industry faces technological challenges of unprecedented scale, and there is a growing demand for a broad spectrum of innovative applications to meet the needs of businesses and consumers. In response, academic institutions and industrial research labs are prioritizing the effective and high-quality training of new computer scientists and researchers. The goal of this session is to discuss talent growth and development of young researchers who are in the early stages of their careers.</p> <p>We will hear from senior education leaders what research institutions need to provide—in terms of guidance, resources, and environment—so that they can best help young researchers become more independent and proficient. We will also learn, from</p>	<p>Room 213, Shiing-shen Building, Nankai University</p>

Time	Event/Topic	Location
	<p>examples and experiences of successful young scholars, how young researchers can stay self-motivated and focused during this process.</p> <p>A panel—consisting of successful and experienced scientists and researchers from both academia and industry, at different stages of their careers—will help lead a discussion on what changes we can make to cultivate exceptional new research talent for computer science and industry.</p>	
12:40–13:30	Break and lunch	
13:30–15:00	DemoFest	Ground Floor, Shiing-shen Building, Nankai University
15:00	Closing	