

Microsoft Research

# Faculty Summit **2017**

## The Edge of AI



# Monday, July 17

<b>7:30–8:30</b>	<b>Breakfast</b>	MCKINLEY
<b>8:30–8:40</b>	<b>Welcome</b> Speakers: Christopher Bishop, Evelyne Viegas	KODIAK
<b>8:40–9:10</b>	<b>AI in the Open World</b> Chair: Christopher Bishop Speaker: Eric Horvitz	KODIAK
<b>9:10–10:10</b>	<b>Smart Enough to Work With Us? Foundations and Challenges for Teamwork-Enabled AI Systems</b> Chair: Susan Dumais Speaker: Barbara Grosz	KODIAK
<b>10:10–10:40</b>	<b>Technology Showcase – Lightning Round</b> Chair: Roy Zimmermann	KODIAK
<b>10:40–11:00</b>	<b>Break</b>	
<b>11:00–12:30</b>	<b>Breakout Sessions</b>	
	<b>Machine Reading Using Neural Machines</b> Chair: Lucy Vanderwende Speakers: Isabelle Augenstein, Jianfeng Gao, Percy Liang, Rangan Majumder	CASCADE
	<b>Integrative-AI</b> Chair: Sean Andrist Speakers: Dan Bohus, Louis-Philippe Morency, Besmira Nushi	RAINIER
	<b>AI for Accessibility: Augmenting Sensory Capabilities with Intelligent Technology</b> Chair: Meredith Ringel Morris Speakers: Jeffrey Bigham, Shaun Kane, Walter Lasecki	ST. HELENS

The schedule may have changed since the time of printing.  
Please visit [MicrosoftFacultySummit.com](https://MicrosoftFacultySummit.com) for the most current schedule.

<b>12:30–1:15</b>	<b>Lunch</b>	MCKINLEY
<b>1:15–3:15</b>	<b>Technology Showcase</b> Chair: Roy Zimmermann	HOOD/BAKER
<b>3:15–4:45</b>	<b>Breakout Sessions</b>	
	<b>Conversational Systems in the Era of Deep Learning and Big Data</b> Chair: Bill Dolan Speakers: Jackie Chi Kit Cheung, Michel Galley, Ian Lane, Alan Ritter, Lucy Vanderwende, Jason Williams	CASCADE
	<b>From Visual Sensing to Visual Intelligence</b> Chair: Gang Hua Speakers: Rama Chellappa, Katsu Ikeuchi, Song-Chun Zhu	RAINIER
	<b>Learnings from Human Perception</b> Chair: Mar Gonzalez-Franco Speakers: Olaf Blanke, Mel Slater, Ana Tajadura-Jiménez	ST. HELENS
<b>5:00–5:45</b>	<b>Fireside Chat</b> Chair: Sandy Blyth Speakers: Christopher Bishop, Harry Shum	KODIAK
<b>5:45–6:30</b>	<b>Travel to Dinner</b>	
<b>6:30–9:00</b>	<b>Dinner at The Golf Club at Newcastle</b>	

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# Tuesday, July 18

7:30–8:30

**Breakfast**

MCKINLEY

8:30–9:30

**The Interplay of Agent and Market Design**

KODIAK

Chair: Kori Inkpen

Speaker: Amy Greenwald

9:45–11:15

**Breakout Sessions**

**Provable Algorithms for ML/AI Problems**

CASCADE

Chair: Prateek Jain

Speakers: Sham Kakade, Ravi Kannan, Santosh Vempala

**Private AI**

RAINIER

Chair: Ran Gilad-Bachrach

Speakers: Rich Caruana, JungHee Cheon, Kristin Lauter

**AI for Earth**

ST. HELENS

Chair: Lucas Joppa

Speakers: Tanya Berger-Wolf, Carla Gomes, Milind Tambe

11:30–1:00

**Breakout Sessions**

**Microsoft Cognitive Toolkit (CNTK) for Deep Learning**

CASCADE

Chair: Chris Basoglu

Speakers: Sayan Pathak, Yanmin Qian, Cha Zhang

**AI and Security**

RAINIER

Chair: David Molnar

Speakers: Taesoo Kim, Dawn Song, Michael Walker

**Social and Emotional Intelligence in AI and Agents**

ST. HELENS

Moderator: Mary Czerwinski

Panelists: Justine Cassell, Jonathan Gratch, Daniel McDuff,  
Louis-Philippe Morency

<b>1:00–2:00</b>	<b>Lunch</b>	MCKINLEY
<b>2:00–3:30</b>	<b>Breakout Sessions</b>	
	<b>Transforming Machine Learning and Optimization through Quantum Computing</b>	CASCADE
	Chair: Krysta Svore Speakers: Helmut Katzgraber, Matthias Troyer, Nathan Wiebe	
	<b>Challenges and Opportunities in Human-Machine Partnership</b>	RAINIER
	Chair: Ece Kamar Speakers: Eric Horvitz, Subbarao Kambhampati, Milind Tambe	
	<b>Towards Socio-Culturally Aware AI</b>	ST. HELENS
	Chair: Kalika Bali Speakers: Cristian Danescu-Niculescu-Mizil, Daniel McDuff, Christopher Potts	
<b>3:45–4:45</b>	<b>AI, People and Society</b>	KODIAK
	Moderator: Eric Horvitz Panelists: Solon Barocas, Carla Gomes, Percy Liang, Gireeja Ranade	
<b>4:45–5:45</b>	<b>Model-Based Machine Learning</b>	KODIAK
	Chair: Eric Horvitz Speaker: Christopher Bishop	
<b>5:45–6:00</b>	<b>Closing Remarks</b>	KODIAK
	Speakers: Christopher Bishop, Evelyne Viegas, Roy Zimmermann	

# Technology Showcase

- 1 AI for Earth Classification
- 2 Customizing Speech Recognition for Higher Accuracy Transcriptions
- 3 Microsoft Translator live
- 4 Mobile Directions Robot
- 5 Human-Robot Collaboration
- 6 Project Malmo – Experimentation Platform for the Next Generation of AI Research
- 7 Project InnerEye – Assistive AI for Cancer Treatment
- 8 Custom Vision Service
- 9 InstaFact – Bringing Knowledge to Office Apps
- 10 Machine Reading Comprehension over Automotive Manual
- 11 Bing Visual Search
- 12 Microsoft Pix
- 13 Deep Artistic Style Transfer: From Images to Videos
- 14 Interactive Chinese Learning App
- 15 Zo AI
- 16 Machine Teaching Using the Platform for Interactive Concept Learning (PICL)
- 17 Accelerating DNNs on FPGAs with Hardware Microservices
- 18 DeepFind: Searching within Documents to Answer Natural Language Questions
- 19 InfoBots: AI-Powered Conversational QnA System
- 20 Cortana, Your Personal Assistant
- 21 Tutorial: Platform for Situated Intelligence

## Photo Booth

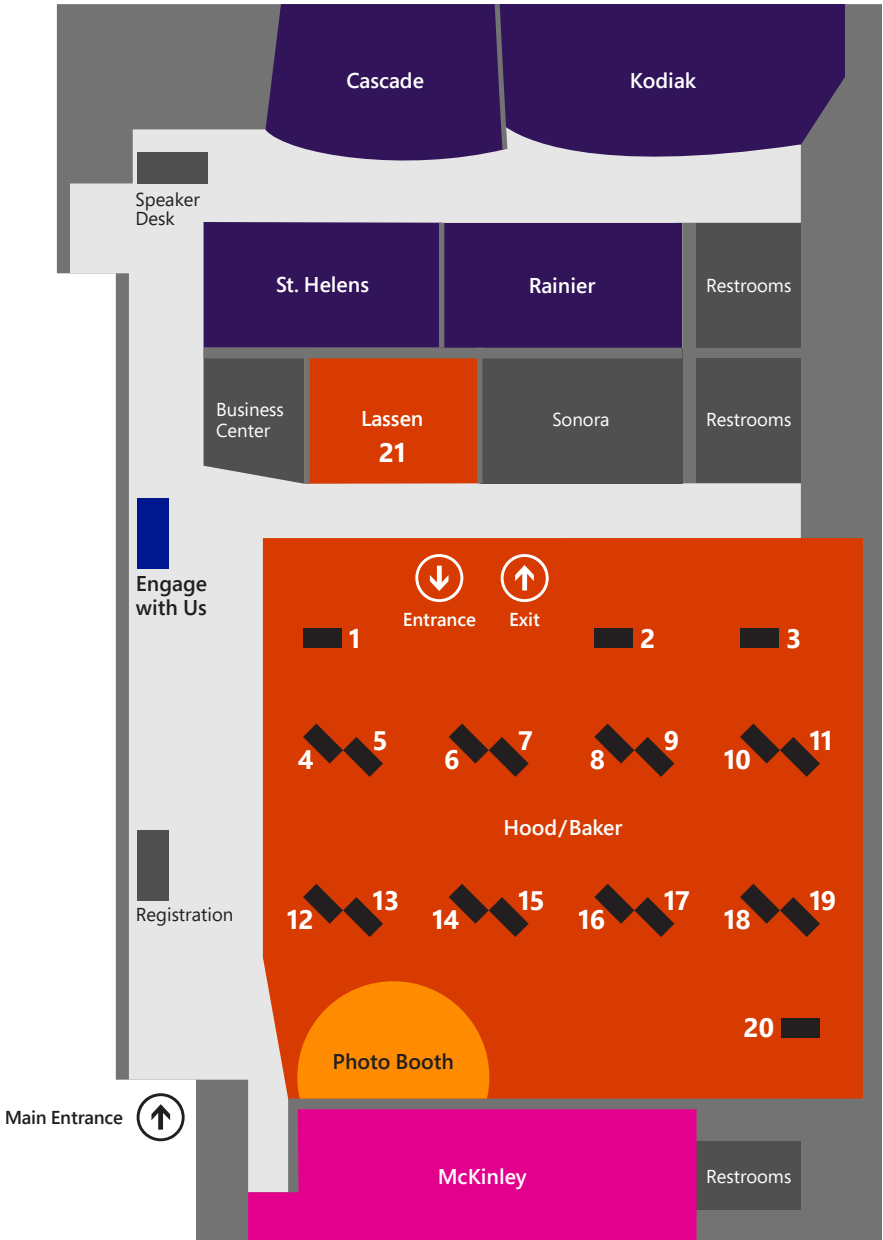
Be sure to stop by our photo booth and strike a pose.

## Engage with Us

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# Map

Microsoft Conference Center  
Building 33



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Microsoft Research

# Together, we can achieve more

At Microsoft Research, we're inventing the future of computing. We relentlessly push the boundaries of technology, actively collaborate with world-class researchers, and passionately support the next generation of scientists.

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