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Welcome

Dear Colleagues,

Welcome to the 2019 Microsoft Research Faculty Summit! We’re excited to celebrate our twentieth annual Faculty Summit with you and are looking forward to the lively exchange of ideas as we dive into broad, open concepts of work in the future. Central to this year’s theme—The future of work—the summit will present current insights and research from Microsoft product and research groups during our agenda and Technology Showcase.

This year’s Faculty Summit investigates how researchers are understanding, improving, and changing the future of work for individuals and organizations alike. The program is designed to create dialog across a breadth of areas on a wide range of topics from Artificial Emotional Intelligence, Social Systems, and the Future of Collaboration, as well as a panel on Human-AI Collaboration for Decision-Making. We’re also delighted to have Bill Gates join us as he and Eric Horvitz share their thoughts on computing advancements and the future of productivity.

The Microsoft Research Faculty Summit is one of those rare opportunities to connect with leading researchers from around the globe. Be sure to see some of our leading-edge research in action during the Technology Showcase. Enjoy the networking lunch: One Table/One Topic as you get to join our senior technical leaders across Microsoft product groups and Distinguished Engineers on a specific technology topic. It’s just another way to broaden your network at the event.

Whether this is your first Microsoft Research Faculty Summit, or you’ve been here before, we’re confident you’ll be inspired by the wealth of expertise and diversity of perspectives among your fellow attendees.

On behalf of the Microsoft team, we thank you for joining us this year.

Warm regards,

Sandy Blyth
Global Managing Director
Microsoft Research
### Wednesday, July 17

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<tr>
<th>Time</th>
<th>Session</th>
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<td>8:30–9:00</td>
<td><strong>Welcome and Introduction</strong></td>
<td>KODIAK</td>
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<td></td>
<td>Sandy Blyth, Global Managing Director, Microsoft Research</td>
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<tr>
<td>9:00–10:00</td>
<td><strong>Keynote: An Expansive View of Productivity</strong></td>
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<td>Jaime Teevan</td>
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<td><strong>Keynote: Understanding Workplace Well-Being and Productivity through Sensor Tracking</strong></td>
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<td>Gloria Mark</td>
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<td>10:00–10:15</td>
<td><strong>Transition Break</strong></td>
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<td>10:15–11:45</td>
<td><strong>Breakout Sessions</strong></td>
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<td><strong>Microproductivity: Getting Big Things Done Using Smaller Moments</strong></td>
<td>RAINIER</td>
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<td>Chair: Shamsi Iqbal</td>
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<td><strong>Techniques for ML Model Transparency and Debugging</strong></td>
<td>ST. HELENS</td>
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<td>Chair: Steven Drucker</td>
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<td><strong>Envisioning Fluid Cross-Device Experiences</strong></td>
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<td>Chair: Nathalie Richie</td>
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<td>11:45–1:00</td>
<td><strong>Networking Lunch: One Table / One Topic</strong></td>
<td>MCKINLEY</td>
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<td>1:00–2:30</td>
<td><strong>Breakout Sessions</strong></td>
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<td><strong>AI-Driven Image Captioning For Inclusive Productivity</strong></td>
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<td>Chair: Ed Cutrell</td>
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<td><strong>Recommendation and Learning to Improve Personal Productivity</strong></td>
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<td>Chair: Paul Bennett</td>
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</table>
1:00–2:30  **The Future of Communication**  
Chair: Sean Rintel

2:30–3:00  Networking Break

**Breakout Sessions**

3:00–4:30  **Workforce of the Future**  
Chair: Ehsan Hoque

3:00–4:30  **Task Intelligence: Doing More with Less**  
Chair: Ryen White

3:00–4:30  **Augmented and Virtual Productivity Experiences**  
Chair: Mar Gonzalez-Franco

4:30–4:45  Transition Break

4:45–5:45  **A Conversation with Bill Gates hosted by Eric Horvitz**

5:45–6:30  Travel to Seattle

6:30–9:00  Dinner at Chihuly Garden and Glass

9:00–10:30  Surprise Experience (optional)

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<td>8:30–9:00</td>
<td>Welcome and Technology Showcase Lightning Round</td>
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<tr>
<td>9:00–10:00</td>
<td>Keynote: Intentional Approaches to Computer-Machine Collaboration</td>
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<td>Mira Lane</td>
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<td>10:00–12:00</td>
<td>Technology Showcase</td>
<td>The Future of Work Demos</td>
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<td>12:00–1:00</td>
<td>Networking Lunch</td>
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Breakout Sessions

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<tr>
<td>1:00–2:30</td>
<td>Human-AI Collaboration for Decision-Making</td>
<td>KODIAK</td>
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<td></td>
<td>Co-Chairs: Besmira Nushi, Ece Kamar</td>
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<tr>
<td>1:00–2:30</td>
<td>Using AI to Increase Programmer Productivity</td>
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<td>Co-Chairs: Sarah Bird and Markus Weimer</td>
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<td>1:00–2:30</td>
<td>Future of Spreadsheetsing</td>
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<td>Co-Chairs: Andy Gordon, Shi Han, and Ben Zorn</td>
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<td>2:30–3:00</td>
<td>Networking Break</td>
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<td>3:00–4:30</td>
<td>Productivity in Software Development</td>
<td>ST. HELENS</td>
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<td>Chair: Neel Sundaresan</td>
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<tr>
<td>3:00–4:30</td>
<td>Workers of the World, Connect! Tech Innovations and Organizational Change for the Future of Work(ers)</td>
<td>RAINIER</td>
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<tr>
<td></td>
<td>Co-Chairs: Mary Gray and Jacki O’Neill</td>
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</table>
3:00–4:30  **Artificial Emotional Intelligence, Social Systems, and the Future of Collaboration**  
Chair: Mary Czerwinski

4:30–4:45  **Transition Break**

4:45–5:45  **Keynote: The Future of Work And the Power of Data**  
Johannes Gehrke

5:45–6:45  **Closing Reception**
## Technology Showcase

### Productivity
1. Calendar.help: A Virtual Meeting Scheduling Assistant
2. Workplace Intelligence
3. Spreadsheet Understanding Using Statistics and Deep Learning
4. Spreadsheet Intelligence for Ideas of Excel
5. AI in PowerPoint
6. Charticulator: Interactive Construction of Bespoke Chart Layouts
7. Microsoft Teams: Collaborate with Any Researcher Anywhere
8. Microsoft Whiteboard: Digital, Freeform Canvas for Creative Collaboration
9. Immersive Storytelling with Data in Plain and Mixed Reality

### Developer Tools
14. Surface Hub2S: Surface Device for the Modern Workplace
15. FASTER: An Embedded Key-Value Store for State Management
16. AI Assisted Software Development and Diagnostics
17. Project Conversation Learner: Democratizing AI for Bot Development
18. Multi-Objective Interactive Program Synthesis
20. Quantum Development Kit, Q# and Katas
21. Project Alava: Programming Webs of Microcontrollers

### Accessibility
22. Drawiz: Making Technical Diagrams Accessible to People with Visual Impairments
24. Multi-Device Experiences (MDX) Toolkit
25. Touching the Void
26. Sensing Posture-Aware Pen + Touch Interaction
27. Accessible Virtual Reality

### One Table/One Topic
Enjoy the networking lunch: One Table/One Topic, Wednesday July 17. Join a conversation with our senior technical leaders across Microsoft product groups and Distinguished Engineers on a specific technology topic.

MicrosoftFacultySummit.com
The future of work: Interactive mural wall

Registration

Main Entrance

McKinley

Hood/Baker

The Hub

Kodiak

St. Helens

Rainier

Lassen

Sonora

Restrooms

Restrooms

Speaker Desk

Speaker Desk
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