# AAAI News

*Summer News from the Association for the Advancement of Artificial Intelligence*

## AAAI-20 Submission Dates Announced!

The Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI-20) and the Thirty-Second Innovative Applications of Artificial Intelligence (IAAI-20) conferences will be held February 7-12, 2020 at the Hilton New York Midtown, New York, New York, USA. The Call for Papers for AAAI-20 is now available at aaai.org/ Conferences/AAAI-20.

Please mark the following dates on your calendar:

*July 15 – August 29, 2019:* Authors register on the AAAI website.

*August 30, 2019:* Electronic abstracts due at 11:59 PM UTC-10 (midnight, Hawaii time zone).

*September 5, 2019:* Electronic papers due at 11:59 PM UTC-10 (midnight, Hawaii time zone).

*October 10–13, 2019:* Author Feedback Window (5:00 PM PDT – 5:00 PM, California time zone).

*November 10, 2019:* Notification of acceptance or rejection.

*November 21, 2019:* Camera-ready copy due at 5:00 PM PDT (California time zone).

AAAI-20 program cochairs Vincent Conitzer and Fei Sha will continue the traditions of past years with a dynamic technical program, as well as strong outreach programs for students, women, and sister conferences. They have absorbed all former special tracks into the main conference technical program, with provision for distinguished oversight of reviews for these areas. In addition, the cochairs have continued the Emerging Topics program which, this year, will encourage submissions and community building in the area of AI for social impact. Further details about this theme are available at aaai.org/ Conferences/AAAI-20/aaai20emergingcall. For complete details on submitting to the technical program, and to view the Call for Papers, please see aaai.org/Conferences/ AAAI-20.

For more information about AAAI-20 as it develops, please visit www.aaai.org/ aaai20, or contact AAAI at aaai20@ aaai.org.

We look forward to seeing you in New York next February!

## AAAI-20 Programs

AAAI-20 will comprise a host of programs, including the Senior Member Track, the Technical Demonstration Program, the Tutorial and Workshop Programs, and several student programs, such as the Student Abstract and Poster Program and the Doctoral Consortium. The calls for each of these programs are available via the AAAI-20 conference site at aaai.org/ Conferences/AAAI-20.

Please make a note of the deadlines for these upcoming AAAI-20 programs (subject to change).

### Workshop Program

Workshop proposals are due July 12, 2019.

Workshop submissions will be due to organizers on November 12.

### Tutorial Program

Tutorial proposals for the AAAI-20 conference will be due September 6, 2019.

### Senior Member Track

Submissions of talks and papers to the Senior Member Track will be due September 13, 2019.

### AAAI/SIGAI Doctoral Consortium

Application packages for the AAAI/ SIGAI Doctoral Consortium will be due September 13, 2019.

### Technical Demonstration Program

Full technical demonstration submissions (short paper and video or slides) will be due September 20, 2019.

### Student Abstract and Poster Program

Abstracts for the Student Abstract and Poster Program will be due September 20, 2019.

## AI in Practice Returns in 2020!

The 2020 edition of AI in Practice will be held February 12, 2020 at the Hilton New York Midtown, colocated with AAAI-20. AI in Practice will focus on emerging applications of AI in healthcare. Organizers Evgeniy Gabrilovich (Google Research) and Ashish Jha (Harvard School of Public Health) intend to offer a venue for exchanging ideas among participants from different disciplines, from general computer science, to AI and ethics, to medicine and public health. The event program will include keynotes, invited talks, and a discussion panel. Full details will be available soon at the AAAI-20 website.

# AAAI Congratulates New ACM Fellows

The Association for Computing Machinery recently named 56 of its members as fellows for significant contributions in areas including computer architecture, mobile networks, robotics, and systems security. Among the winners are several AAAI members and AAAI Fellows,* including the following honorees:

Adnan Darwiche (University of California, Los Angeles)*
For contributions to the foundations and technology of automated reasoning

Tim Finin (University of Maryland, Baltimore County)*
For contributions to theory and practice of knowledge sharing in distributed systems and the World Wide Web

Mohammad T. Hajiaghayi (University of Maryland, College Park)
For contributions to the fields of algorithmic graph theory and algorithmic game theory

Charles Lee Isbell (Georgia Institute of Technology)*
For contributions to interactive machine learning; and for contributions to increasing access and diversity in computing

Lillian Lee (Cornell University)*
For contributions to natural language processing, sentiment analysis, and computational social science

Michael Littman (Brown University)*
For contributions to the design and analysis of sequential decision-making algorithms in artificial intelligence

Huan Liu (Arizona State University)*
For contributions in feature selection for data mining and knowledge discovery and in social computing

Jiebo Luo (University of Rochester)*
For contributions to multimedia content analysis and social multimedia informatics

David Parkes (Harvard University)*
For contributions to computational markets, including novel mechanism design and incentive engineering methods

Gerald Tesauro (IBM Research, Yorktown)*
For contributions to reinforcement learning, neural networks, and intelligent autonomous agents

Ellen M. Voorhees (National Institute of Standards and Technology)
For contributions in evaluation of information retrieval, question answering, and other language technologies

AAAI congratulates all the honorees! The new ACM Fellows were formally recognized at the ACM Awards Banquet on June 15 in San Francisco. For more information, please see awards.acm.org/fellows.

## 2019 AAAI Fall Symposium Series

The 2019 AAAI Fall Symposium Series will be held Thursday through Saturday, November 7-9, at the Westin Arlington Gateway, Arlington, Virginia, adjacent to Washington, DC. The titles of the symposia are available at www.aaai.org/Symposia/Fall/fss19. Please note that submissions are due July 26, 2019.

The series brings together a set of two- and one-half-day symposia at a common site, providing a unique and intimate forum for colleagues in a given discipline. Participants will be expected to attend a single symposium. The series also provides an important gathering point for the AI community as a whole. Participation will be open to active participants as well as other interested individuals. Efforts are made to encourage participation by graduate students.

Complete registration and hotel information will be available in late July at www.aaai.org/Symposia/Fall/fss19. Invited participants must register by September 20, and the final registration deadline is October 11. The deadline for hotel reservations at the Westin is 5:00 PM EDT, October 16, 2019. The discounted room rate of $205.00 per night (single/double) may not be available after this date. Contact information for the Westin will be included in the registration materials.

## Join Us for the 10th Anniversary of HCOMP!

The Seventh AAAI Conference on Human Computation and Crowdsourcing (HCOMP-2019) will be held October 28-30, 2019, at Skamania Lodge in the state of Washington (USA) near the Columbia Gorge River, just 45 minutes from Portland, Oregon. This year marks the tenth anniversary of the first HCOMP workshop in Paris, and to celebrate, there will be special events, talks, and panels throughout the conference.

HCOMP-2019 is the premier venue for disseminating the latest research findings on crowdsourcing and human computation. While AI and human-computer interaction (HCI) represent traditional mainstays of the conference, HCOMP believes strongly in inviting, fostering,

# The Fifteenth AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE-19)

Please join us for the Fifteenth AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE-19), to be held October 8-12, 2019 at the Georgia Institute of Technology, Atlanta, Georgia, USA. The AIIDE conference showcases interdisciplinary research on modeling, developing, and evaluating intelligent systems in entertainment. AIIDE-19 will provide a meeting place for AI researchers and practitioners to discuss the latest advances and contemporary issues in entertainment-focused AI. The conference has a long-standing history of featuring research on artificial intelligence in computer games, and continues to grow into entertainment areas beyond games. AIIDE invites researchers, developers, and digital artists to share ideas on topics at the intersection of all forms of entertainment and artificial intelligence. The program will include invited speakers, research and practitioner presentations, panels, playable experiences, project demonstrations, interactive poster sessions, AI competitions, workshops, tutorials, a doctoral consortium, and an artifact evaluation.

The special topic of this year's conference is human-centered evaluation. In addition to general topics of interest in entertainment AI, the conference program will feature speakers, panels, and paper sessions that focus directly on evaluation and critical analysis of AI in digital entertainment contexts. For complete program details, please see aiide.org.
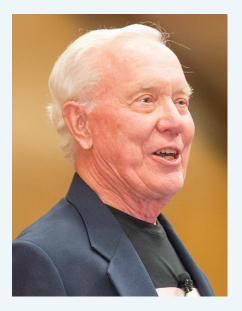
AIIDE-19 registration information will be available at the AIIDE-19 website at the beginning of July, 2019. The early registration deadline is scheduled for August 16. Please send inquiries to aiide19@aaai.org, general chair Gillian Smith (Worcester Polytechnic Institute), or program chair Levi Lelis (Universidade Federal de Viçosa).

and promoting broad, interdisciplinary research. This field is particularly unique in the diversity of disciplines it draws upon, and contributes to, ranging from human-centered qualitative studies and HCI design, to computer science and artificial intelligence, to economics and the social sciences, all the way to digital humanities, policy, and ethics. The conference promotes the exchange of advances in human computation and crowdsourcing not only among researchers, but also engineers and practitioners, to encourage dialogue across disciplines and communities of practice.

Registration and hotel information will be available at www.humancomputation. com/2019 by July 31. The early registration deadline is scheduled for August 30, 2019. The deadline for hotel reservations at Skamania is September 27. Please send inquiries to hcomp19@ aaai.org. Cochairs for HCOMP-19 are Edith Law (University of Waterloo, Canada) and Jenn Wortman Vaughn (Microsoft Research).

# In Memoriam, Nils Nilsson



*Nilsson Speaking at the
AAAI-15 Shakey Celebration.*

AAAI mourns the recent passing of AAAI past president and Fellow Nils Nilsson. Nilsson, the Kumagai Professor of Engineering, Emeritus, at Stanford University, died April 23 at his home in Medford, Oregon. He was 86. Nilsson is best known for his foundational work in robotics, artificial intelligence and machine learning dating to the earliest days of the fields. He earned his PhD in electrical engineering at Stanford in 1958 and immediately began serving in the U.S. Air Force. After his discharge in 1961, he took a position at Stanford Research Institute, working on neural networks and statistical approaches to robotic problem-solving. He would eventually rise to lead SRI from 1980 to 1984. In 1985, Nilsson joined the Stanford faculty as chair of the Department of Computer Science, a role in which he served until 1990. Between 1966 and 1972, Nilsson co-directed the creation of an autonomous robot known affectionately as SHAKEY, after the way the top-heavy robot would shudder as it made its way about in stops and starts. He was noted for helping to design and write the algorithms that helped SHAKEY make decisions and plan the most efficient course, Stanford Research Institute Problem Solver (STRIPS) and A**, the intellectual progeny of which are still in use today.

AAAI held a Shakey Celebration at AAAI-15, including a panel with Nilsson, Peter Hart, and Ed Feigenbaum, commemorating the robot's seminal contribution to AI during the past fifty years. Shakey has also been immortalized as the name of the Oscarlike gold statuette presented to past winners of the AAAI Video Competition.

Nilsson authored or coauthored at least nine books, including *The Quest for Artificial Intelligence: A History of Ideas and Achievements* (Cambridge University Press, 2010) and *Principles of Artificial Intelligence* from Morgan Kaufmann Publishers, a publishing house he cofounded. He served on the editorial boards of the journal *Artificial Intelligence* and of the *Journal of Artificial Intelligence Research* and as an editor of the *Journal of the Association for Computing Machinery*. In additional to AAAI Fellowship, Nilsson was also elected a member of the National Academy of Engineering, and a foreign member of the Royal Swedish Academy of Engineering Sciences. He was honored with a number of industry awards, including a Neural-Network Pioneer Award from IEEE, the Research Excellence Award from the International Joint Conference on Artificial Intelligence and the AAAI Distinguished Service Award for lifetime achievement in 2005.

## AAAI 2020 Spring Symposium Series

The 2020 Spring Symposium Series will be held March 23–25, 2020 at Stanford University. The Call for Proposals is located at www.aaai.org/Symposia/Spring/sss20. Proposals are due July 12. The Call for Participation, including the list of accepted symposia, will be available in late August. Submissions will be due to the organizers on November 1, 2019. For more information, please contact the Symposium cochairs, Christopher Geib and Ron Petrick, at

sss20chairs@aaai.org or AAAI at sss20@aaai.org.

## AAAI Fellows Nominations Solicited

The 2020 Fellows Selection Committee is currently accepting nominations for AAAI Fellow. The AAAI Fellows program is designed to recognize people who have made significant, sustained contributions to the field of artificial intelligence over at least a ten-year period. All regular members in good standing are encouraged to consider nominating a candidate. At least two references must accompany nominations. The nominator or one of the references must be an AAAI Fellow who is a current member of AAAI. For further information about the Fellows Program or to receive nomination and reference forms, please contact AAAI at 650-328-3123; by fax at 650-321-4457; or by email at fellows20@aaai.org. Nomination materials are also available on the AAAI web site at http://www.aaai.org/Awards/fellows.php. The deadline for nominations is September 27, 2019.

## 2020 Special Award Nominations

AAAI is pleased to announce the continuation of its special awards program for 2020. Nominations are currently being sought for all award categories. For a full overview of the AAAI Awards, please see www.aaai.org/Awards/awards.php.

### Classic Paper Award

The 2020 AAAI Classic Paper Award will be given to the author of the most influential paper(s) from the Nineteenth National Conference on Artificial Intelligence, held in 2004 in San Jose, California, USA. For information and a link to the nomination form, please see www.aaai.org/Awards/classic.php. The deadline for nominations is September 27, 2019. For additional inquiries, please contact Carol Hamilton at awards20@aaai.org.

### Distinguished Service Award

The 2020 AAAI Distinguished Service Award will recognize one individual for extraordinary service to the AI community. Awards will be presented at

## AAAI Member News

### AAAI Announces New Chapter in Yucatan, Mexico

AAAI is pleased to announce the formation of the latest AAAI student chapter in Yucatan, Mexico at the Instituto Tecnológico de Mérida. For more information, please see the contact information posted at aaai.org/Membership/membership-chapters.php.

AAAI welcomes proposals for regular and student chapter activities. For an application form and complete guidelines, please see the aforementioned URL.

AAAI-20 in New York, New York, USA. Complete nomination information, including a nomination form, is available at aaai.org/Awards/distinguished.php. The deadline for nominations is September 27, 2019. For additional inquiries, please contact Carol Hamilton at awards20@aaai.org.

## Robert S. Engelmore Memorial Lecture Award

The Robert S. Engelmore Memorial Lecture Award is presented annually at the IAAI conference in honor of Robert S. Engelmore's extraordinary service to AAAI, *AI Magazine,* the AI applications community, and his contributions to applied AI. The Award includes a certificate and a $1,000.00 honorarium. The lecture is linked to a subsequent article in *AI Magazine;* thus, the award recipients are selected jointly by IAAI and *AI Magazine.* The committee is seeking nominations for individuals of exceptional stature who have exhibited the spirit of Bob Engelmore through a long-term track record of major contributions. The ideal candidate will have demonstrated a breadth of contributions spanning AAAI, the AI community, and applied AI. Nominations should include a brief statement of the qualifications of the candidate for the award, specifically referring to contributions to AAAI, the AI community, and applied AI. Nominations may optionally include supporting information, such as the URL of the nominee's home page, and other documentation of contributions. Nominations should be sent electronically (as PDF files) to rseaward20@aaai.org by September 27, 2019.

## AAAI Senior Member Grade of Membership

AAAI is now taking applications from regular members for the AAAI Senior Member grade of membership. This status is designed to recognize members who have achieved significant accomplishments within the field of artificial intelligence. To be eligible for nomination for Senior Member, candidates must be consecutive members of AAAI for at least five years and have been active in the professional arena for at least ten years. Applications should include information that details the candidate's scholarship, leadership, and/or professional service. At least two references, one of which must be written by an AAAI Fellow or a current AAAI Senior Member must accompany

Courtesy, iStock

# Plan Your Stay in New York for AAAI–20!

Located in the heart of New York City in Midtown Manhattan, the Hilton New York Midtown hotel is within walking distance from New York's premier attractions such as Times Square, Radio City Music Hall, Fifth Avenue shopping, the Broadway Theatre District, Central Park, The Museum of Modern Art (MOMA) and many more iconic New York landmarks. Manhattan's extraordinary cityscape provides a dramatic charge for people of all interests and ages. Powerfully compact at 13.5 miles long, the borough is filled with soaring skyscrapers, glamorous neighborhoods, shops and restaurants, with the magnificent 843-acre Central Park — a National Historic Landmark — at its heart. Be sure to sample Manhattan's cultural masterpieces — The Metropolitan Museum of Art, MoMA, and the Guggenheim Museum — or experience a live show on Broadway, at Lincoln Center, a TV studio or in jazz clubs from Harlem to Greenwich Village. The list of key landmarks is topped by the Statue of Liberty, the Empire State Building, Times Square, South Street Seaport, The Cloisters, and Rockefeller Center. Beyond Manhattan, New York's five boroughs have five distinct personalities, with their own vibrant cultures, dynamic art scenes and world-renowned shopping and dining. For complete information about options in New York, please visit www.nycgo.com.

*Please join us in 2020 in New York as AAAI celebrates 40 years of championing AI!*

the senior member application. References should be submitted by colleagues who know the candidate, and are familiar with their work and accomplishments. Each year a maximum of 25 members will be elected to the Senior Member status. All applications and references must conform to the requirements listed on the form, and must be received by September 27, 2019. For complete details and an application form, please see www.aaai.org/Awards/senior.php, or contact Carol Hamilton at senior-member20@aaai.org.

## AAAI/EAAI Outstanding Educator Award

The AAAI/EAAI Outstanding Educator award will be presented for the fifth year during AAAI-20 in New York. This award recognizes a person (or group of people) who has made major contributions to AI education that provide long-lasting benefits to the AI community. Examples include innovating teaching methods, providing service to the AI education community, generating pedagogical resources, designing curricula, and educating students outside of higher education venues (or the general public) about AI. The award consists of a certificate, a $1,000 honorarium, complimentary one-year AAAI membership (new or renewal), and free conference registration to the upcoming EAAI conference and colocated AAAI conference. For complete information, please see www.aaai.org/Awards/eaai-award.php or write to eaaiaward@aaai.org. The submission deadline is September 27, 2019.

## AAAI Congratulates the Winners of the 2018 ACM Turing Award!

ACM recently named Yoshua Bengio, Geoffrey Hinton, and Yann LeCun recipients of the 2018 ACM A.M. Turing Award for conceptual and engineering breakthroughs that have made deep neural networks a critical component of computing. Working independently and together, Hinton, LeCun and Bengio developed conceptual foundations for the field, identified surprising

phenomena through experiments, and contributed engineering advances that demonstrated the practical advantages of deep neural networks. In recent years, deep learning methods have been responsible for astonishing breakthroughs in computer vision, speech recognition, natural language processing, and robotics — among other applications.

Geoffrey Hinton, who is an AAAI Fellow, is vice president and engineering fellow of Google, chief scientific adviser of The Vector Institute and a university professor emeritus at the University of Toronto. Hinton received a Bachelor's degree in experimental psychology from Cambridge University and a Doctoral degree in artificial intelligence from the University of Edinburgh. He was the founding director of the Neural Computation and Adaptive Perception (later Learning in Machines and Brains) program at CIFAR.

Hinton's honors include Companion of the Order of Canada (Canada's highest honor), Fellow of the Royal Society (UK), foreign member of the National Academy of Engineering (US), the International Joint Conference on Artificial Intelligence (IJCAI) Award for Research Excellence, the NSERC Herzberg Gold medal, and the IEEE James Clerk Maxwell Gold medal. He was also selected by *Wired* magazine for The *Wired* 100—2016's Most Influential People and by Bloomberg for the 50 people who changed the landscape of global business in 2017.

Yoshua Bengio is a professor at the University of Montreal, and the scientific director of both Mila (Quebec's Artificial Intelligence Institute) and IVADO (the Institute for Data Valorization). He is a codirector (with Yann LeCun) of CIFAR's Learning in Machines and Brains program. Bengio received a Bachelor's degree in electrical engineering, a Master's degree in computer science and a Doctoral degree in computer science from McGill University.

Bengio's honors include being named an Officer of the Order of Canada, Fellow of the Royal Society of Canada and the Marie-Victorin Prize. His work in founding and serving as scientific director of the Quebec Artificial Intelligence Institute (Mila) is also recognized as a major contribution to the field. Mila, an independent nonprofit

organization, now counts 300 researchers and 35 faculty members among its ranks. It is the largest academic center for deep learning research in the world, and has helped put Montreal on the map as a vibrant AI ecosystem, with research labs from major companies as well as AI startups.
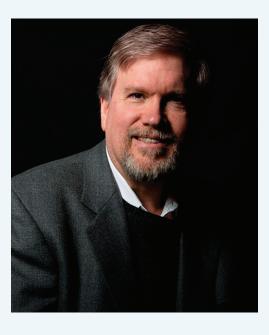
Yann LeCun is Silver Professor of the Courant Institute of Mathematical Sciences at New York University, and VP and Chief AI Scientist at Facebook. He received a Diplôme d'Ingénieur from the Ecole Superieure d'Ingénieur en Electrotechnique et Electronique (ESIEE), and a PhD in computer science from Université Pierre et Marie Curie.

His honors include being a member of the US National Academy of Engineering; Doctorates Honoris Causa, from IPN Mexico and École Polytechnique Fédérale de Lausanne (EPFL); the Pender Award, University of Pennsylvania; the Holst Medal, Technical University of Eindhoven & Philips Labs; the Nokia-Bell Labs Shannon Luminary Award; the IEEE PAMI Distinguished Researcher Award; and the IEEE Neural Network Pioneer Award. He was also selected by *Wired* magazine for The *Wired* 100— 2016's Most Influential People and its 25 Geniuses Who are Creating the Future of Business. LeCun was the founding director of the NYU Center of Data Science, and is a codirector (with Yoshua Bengio) of CIFAR's Learning in Machines and Brains program. LeCun is also a cofounder and former member of the Board of the Partnership on AI, a group of companies and nonprofits studying the societal consequences of AI.

The ACM A.M. Turing Award, often referred to as the Nobel Prize of Computing, carries a $1 million prize, with financial support provided by Google, Inc. It is named for Alan M. Turing, the British mathematician and computer scientist, who made fundamental advances in computer architecture, algorithms, formalization of computing, and artificial intelligence. Turing was also a key contributor to the Allied cryptanalysis of the Enigma cipher during World War II.

ACM presented the 2018 A.M. Turing Award at its annual Awards Banquet on June 15 in San Francisco, California.

# Henry Kautz to Receive the
# ACM-AAAI Allen Newell Award



AAAI congratulates Henry Kautz, who has been selected to receive the 2018 ACM-AAAI Allen Newell Award for contributions to artificial intelligence and computational social science, including fundamental results on the complexity of inference, planning, and media analytics for public health. Kautz has made a range of fundamental contributions to theory and practice in knowledge representation and reasoning, planning and plan recognition, and computational social science. He was one of the pioneers in analyzing the computational complexity of knowledge representation and reasoning systems and showed that inference is intractable for Allen's temporal logic and Reiter's default logic. He was the coinventor of WalkSAT, which greatly advanced our ability to solve Boolean satisfiability problems. Kautz showed how to reduce AI planning problems to SAT problems, which not only led to a paradigm shift in AI planning but also inspired bounded-model checking for software and hardware verification.

Beginning with his doctoral dissertation, Kautz studied how computers can infer the goals and plans of people by observing their behavior. He continued this work with pathbreaking contributions to pervasive computing and social media analytics. One project inferred the transportation destinations of people and was applied to assist cognitively disabled people with wayfinding. A second project analyzed social media data to uncover the strong role of air travel in disease spread. A third project combined social media reports of food poisoning with location data to improve the efficiency of restaurant health inspections. Kautz's work, like that of the prize's namesake Allen Newell, has spanned multiple disciplines and multiple areas within computer science and thereby demonstrated the power and versatility of computer science.

Kautz is serving as division director for information and intelligent Systems (IIS) at the National Science Foundation. He is a professor in the Department of Computer Science and was the founding director of the Goergen Institute for Data Science and at the University of Rochester. He has been a department head at AT&T Bell Labs in Murray Hill, NJ, and a full professor at the University of Washington, Seattle. In 2010, he was elected president of AAAI, and in 2016 was elected chair of the American Association for the Advancement of Science (AAAS) section on information, computing, and communication. He is a Fellow of the AAAS, AAAI, and ACM. He has received the IJCAI Computers & Thought Award, the Ubicomp 10-Year Impact Award, the AAAI Classic Paper Award, and the IAAI Deployed Application Award.

The ACM/AAAI Allen Newell Award is presented to an individual selected for career contributions that have breadth within computer science, or that bridge computer science and other disciplines. This award is accompanied by a prize of $10,000, provided by ACM and AAAI, and by individual contributions. Kautz was formally honored at the ACM Awards Banquet on June 15 in San Francisco. For more information, please see awards.acm.org/newell.