

Gary B. Fogel 
Natural Selection, Inc., USA

Piero Bonissone 
Piero P. Bonissone Analytics, USA

Conference Report on the Inaugural 2023 IEEE Conference on Artificial Intelligence (IEEE CAI 2023)

The inaugural 2023 IEEE Conference on Artificial Intelligence was held June 5–6 at the Hyatt Regency Santa Clara in California’s Silicon Valley. This new event was several years in the making and included co-sponsorship by four IEEE societies including the IEEE Computational Intelligence Society (as lead organization for the first two years), IEEE Computer Society, IEEE Signal Processing Society, and IEEE Systems, Man and Cybernetics Society. Given the co-sponsorship, the event is managed by a steering committee with members from all four societies and with a team from one of the societies annually running the event as the lead sponsor for that year. Our initial ideas for the event began in 2019 and developed through 2020 during the covid-19 pandemic. After attending an AI Exposition, we determined that a large event would require cooperation across multiple societies, and starting a new conference series during a pandemic would not be wise. Plans were made to launch the series in 2023 while we solved the co-sponsorship arrangements. We were pleased to work with staff from the IEEE Computer Society in the planning and development of the conference itself, with content focused on the six

verticals of interest noted previously in IEEE CIM (AI in transportation, energy, healthcare, earth systems, industrial optimization, and societal implications of these applications). We faced additional headwinds going into 2023 as recession fears loomed across corporate America leading to budget cuts for conference engagement. The poorly timed bankruptcy of Silicon Valley Bank also did not help matters. However, we remained eager to have a fully in-person post-pandemic conference with as much personal interaction as possible.

We welcomed four keynote speakers to the conference. Sean Lie from Cerebras gave a great lecture about their new 2.6 trillion processor chips designed for AI applications. Peter Norvig from Stanford provided insights about how AI is transforming education. Kunle Olukotun from SambaNova discussed the importance of reconfigurable dataflow accelerators for improved machine learning models. Finally, Serafim Batzoglou of Seer Bio spoke about the many ways that large language models are game changers in bioinformatics. Along with these



FIGURE 1 Attendees enjoying lunch in the IEEE CAI 2023 exhibit hall.



FIGURE 2 Zita Vale (left) and Marley Vellasco (right) enjoying their time at IEEE CAI 2023.



FIGURE 3 Cecilia Metra (left) presents Kathleen McGowan (right) with her IEEE TFA award.



FIGURE 4 IEEE CAI 2023 keynote presenter Peter Norvig addresses questions from the audience after his lecture.

keynotes, ~70 other invited speakers provided their own presentations either in the form of lectures, panels, or workshops. We were pleased to have the assistance of IEEE Entrepreneurship in the development of their workshop on AI in Entrepreneurship to help people navigate the waters from initial company concept to funding. We were also fortunate to receive many excellent proposals for panels and workshops on a variety of topics from IEEE Standards in AI to various societal and ethical considerations. We were also pleased to have Dr. Kathleen McKeown receive her IEEE Innovation in Societal Infrastructure Technical Field Award at IEEE CAI 2023. In addition, we specially thank Sanaz Mostaghim and Keeley Crockett for helping to arrange an IEEE Women in Computational Intelligence reception to help encourage women to pursue careers in AI and CI. We also were pleased to have a selection of exhibitors, representing components of IEEE as well as companies.

We received a total of 292 poster abstract submissions of which 154 were accepted for the proceedings (53% acceptance rate). The top papers in each vertical were identified with the top 2 papers from each of 5 verticals invited to present their material via oral presentation. From these 10 top papers, three were selected to receive best paper awards. Additionally, another three papers were selected as best poster awards across four poster sessions (thanks to all poster judges and especially Stephen Smith as poster chair). 364 attendees registered for the event, 62% of whom were non-authors. These attendees had broad geographic reach, although not unexpectedly for a first conference, 69% of the attendees were from the United States. 17 travel grants were awarded to mainly graduate student members of the IEEE CIS or IEEE CS (thanks to Hemant Singh, Sanaz Mostaghim, and Jo-Ellen Snyder for processing these awards). Along with Piero Bonissone and Gary Fogel as General Co-Chairs, a very large organizing committee helped make the conference a success including Marley



FIGURE 5 Piero Bonissone (left) and Gary Fogel (right) are pleased to reach the end of IEEE CAI 2023 as General Co-Chairs.

Velasco as Finance Chair, Ivor Tsang, Yew-soon Ong, and Hussein Abbass as Technical Program Co-Chairs, and Dejan Milojicic as Industry Liaison and IAB Chair. We also appreciated service

by Simon See, Tingwen Huang, and Catherine Huang as Panel Session Co-Chairs, Liang Feng and Guang Yang as Submission Co-Chairs, Wei Liu as Proceedings Chair, Keeley

Crockett as Inclusion and Diversity Chair, and Daoyi Dong, Choon Ki Ahn, Xiaojie Su, Giancarlo Fortino, Zheng-Hua Tan, and Bihan Wen as Publicity Co-Chairs. For each vertical we also developed separate committees of 10-15 people to assist in identifying top-quality invited speakers. We also appreciated considerable assistance by staff from the IEEE Computer Society and IEEE Computational Intelligence Society and Quantinuum, Apple, Google, Zoox, and GE Aerospace whose corporate sponsorship helped make the conference possible.

If you happened to miss the event, we'll be posting videos of many of the speakers soon to the IEEE CIS Resource Center (<https://resourcecenter.cis.ieee.org/>). And of course we encourage your attendance at IEEE CAI 2024 which will be held June 25-27 at the Sands Expo and Convention Centre in Singapore!



TAP. CONNECT. NETWORK. SHARE.

Connect to IEEE—no matter where you are—with the IEEE App.



Stay up-to-date with the latest news



Schedule, manage, or join meetups virtually



Get geo and interest-based recommendations



Read and download your IEEE magazines



Create a personalized experience



Locate IEEE members by location, interests, and affiliations

Download Today!

