Sven Koenig (sven.koenig@uci.edu, idm-lab.org)

My research focuses on decision-making techniques from artificial intelligence (AI) that enable single, situated agents (such as robots or decision-support systems) and teams of agents to act intelligently in real time.

Professional Experience and Education

2024-now	Chancellor's Professor and Bren Chair, Computer Science, University of California, Irvine (UCI)
2003-2024	Associate, Full and Dean's Professor, Computer Science, University of Southern California (USC)
2010-2012	Program Director, National Science Foundation (as university rotator)
1998-2003	Assistant Professor, College of Computing, Georgia Institute of Technology
1993, 1997	M.S. and Ph.D. degrees in Computer Science, Carnegie Mellon University
1992, 1992	Diplom degrees in Business Administration and Computer Science, University of Hamburg
1991	M.S. degree in Computer Science, University of California at Berkeley

Awards and Other Recognition

2024	Intern. Conference on Automated Planning and Scheduling: Best system demonstration award honorable mention
2023	AAAI Conference on AI: Classic paper (= "test of time") award
2023	Intern. Conference on Automated Planning and Scheduling: Best student paper honorable mention
2022	Alexander von Humboldt Foundation (Germany): Alexander von Humboldt Professorship for Artificial Intelligence (endowed with EUR5,000,000) offered
2022	Symposium on Combinatorial Search: Best student paper award
2021	Association for Computing Machinery (ACM): Elected fellow "for contributions to AI, including heuristic search and multi-agent coordination"
2021	International Conference on Automated Planning and Scheduling: Best system demonstration award (Gold)
2020	Institute of Electrical and Electronics Engineers (IEEE): Elected fellow "for contributions to search algorithms and multi-agent coordination"
2020	Intern. Conference on Automated Planning and Scheduling: Outstanding student paper award
2020	Symposium on Combinatorial Search: Best paper honorable mention
2020	NeurIPS Flatland Competition, a railway scheduling competition: Advisor of the winning team (my Ph.D. students Jiaoyang Li, Yi Zheng and Shao-Hung Chan plus Zhe Chen from Monash University) - updated software won again in the extended Flatland Competition in 2021
2020	Symposium on Educational Advances in AI: One project selected as "model AI assignment"
2020	Israel Institute of Technology (Technion): Offered the Lady Davis visiting professorship in 2020/2021 (could not be started due to COVID-19 travel restrictions to Israel)
2019	AAAI Conference on AI: Classic paper (= "test of time") honorable mention
2019	USC Stevens Center for Innovation: Technology commercialization award
2018-2023	Amazon: Six Amazon research awards or equivalent (monetary research gifts)
2017	American Association for the Advancement of Science (AAAS): Elected fellow "for significant contributions to planning, decision making and coordination of robots and other situated agents"
2017	IEEE Computer Society: Computer science and engineering undergraduate teaching award "for his commitment to engaging students through project-based learning and mentoring that cultivates a passion for AI", awarded for outstanding contributions to undergraduate education through teaching and service, facilitating a high level of interest in their field, and a distinguished record of impact beyond the local institution
2016	Intern. Conference on Automated Planning and Scheduling: Outstanding paper award (robotics track)
2015	USC Viterbi School of Engineering: Dean's award for innovation in teaching and education
2013	Association for the Advancement of AI (AAAI): Elected fellow "for significant contributions to planning, decision making and coordination of robots and other situated agents"
2013	International Collegiate Programming Contest: Coach of the USC student team that placed highly among all North American teams at the world finals (directly behind CMU and tied with MIT and Stanford)
2013-2019	Association for Computing Machinery: Distinguished speaker (two terms)
2011-2012	National Science Foundation: Two director's awards for collaborative integration
2010	Symposium on Educational Advances in AI: Three projects selected as "model AI assignments"
2009	Intern. Conference on Agents and Multi-Agent Systems: Nomination for best student paper award
2009	USC: Mellon award for faculty mentoring undergraduate students

2004	Georgia Institute of Technology: SAIC advisement award
2003	Georgia Institute of Technology: Outstanding junior faculty research award
2001	Intern. Business Machines Corporation (IBM): Faculty partnership award (monetary research gift)
2000	National Science Foundation: Career award
1999	Georgia Institute of Technology: Raytheon faculty research award
1990	University of California, Berkeley: Tong Leong Lim pre-doctoral prize
1989	Fulbright Commission: Fulbright fellowship

Selected Leadership and Service Activities

- Conference co-chair of the Intern. Conference on Constraint Programming, AI, and Operations Research 2022, the Intern. Conference on Agents and Multi-Agent Systems 2018, the Symposium on Educational Advances in AI 2016 and 2017, the Symposium on Combinatorial Search 2009 and the Intern. Conference on Automated Planning and Scheduling 2004
- Program co-chair of the Intern. Conference on Automated Planning and Scheduling 2023 and 2018, the AAAI Conference on AI 2015 and the Intern. Conference on Agents and Multi-Agent Systems 2005; associate program co-chair of the Intern. Joint Conference on AI 2021
- Evaluator of the Global Station for Big Data and Cybersecurity of Hokkaido University (2020), the Research School of Computer Science of the Australian National University (2016) and the Optimization Group of Australia's Information and Communications Technology Research Centre of Excellence NICTA (2012 and 2014)
- Advisory board member of the Advanced Intelligent Systems journal (since 2019), the Journal of AI Research (2008-2016) and AI Magazine (2018-2020)
- Associate editor of the Autonomous Agents and Multi-Agent Systems journal (since 2010), the Advances in Complex Systems journal (2007-2021), the AI Journal (2014-2020) and the Journal of AI Research (2005-2007)
- Elected chair of the Special Interest Group on AI of the Association for Computing Machinery (2016-2019), chair of the AAAI conference committee (2020-2022) and president of the organization that runs the Symposium on Combinatorial Search (2019-2022)
- Elected member of the AAAS steering group of the Information, Computing and Communication Section (since 2020), the board of directors of the Intern. Foundation for Autonomous Agents and Multi-Agent Systems (since 2020), the AAAI executive council (2013-2016 and ex officio 2019-2022) and the executive council of the Intern. Conference on Automated Planning and Scheduling (2004-2010); member of the council of the Computing Community Consortium of the Computing Research Association (since 2021), the steering committee of the AAAI/ACM AI, Ethics and Society conference (since 2018), the executive committee of the IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems (2017-2022) and the governing council of the Symposium on Combinatorial Search (2010-2015 and, as president, 2019-2022)

Statistics

- Sabbatical or visiting positions at Australian National University/NICTA, Ben-Gurion University of the Negev, California Institute of Technology, Carnegie Mellon University, Monash University, NASA Ames and University of California at Berkeley
- External dissertation (and habilitation) committee member of 20 students from Australia, Europe and North America
- 11 graduated Ph.D. students (4 of them became professors at US and Canadian universities, including Carnegie Mellon University)
- Undergraduate, Master's and Ph.D. students have won many awards (see http://idm-lab.org/news.html) – one Ph.D. student was selected by IEEE Intelligent Systems as one of the "AI's 10 to Watch" ("10 young stars in the field of AI"), one Ph.D. student was selected for the ICAPS Best Dissertation Award and runner-up for the Victor Lesser Distinguished Dissertation Award of the International Foundation for Autonomous Agents and Multiagent Systems, and one Ph.D. student was selected for the Victor Lesser Distinguished Dissertation Award, an ICAPS Best Dissertation Award, and the William F. Ballhaus, Jr. Prize for Excellence in Graduate Engineering Research ("Best Dissertation Award of the USC Viterbi School of Engineering")
- 300+ publications with 20,000+ citations and an h-index of 70+ (according to Google Scholar), including 23 papers at the International Joint Conference on AI and 35 papers at the AAAI Conference on AI but also papers at conferences on planning (ICAPS), multi-agent systems (AAMAS), machine learning (ICML, NeurIPS, COLT), reasoning with uncertainty (UAI), constraint programming (CP, CPAIOR), knowledge representation and reasoning (KR), computer science theory (SODA), robotics (ICRA, IROS, RSS) and others
- Cited 7 times in 4 chapters of the textbook "AI: A Modern Approach" (4th edition)
- 100+ invited talks and 22 discussion panels at conferences, universities and other organizations
- Judge of 23 contests/awards
- 45 student mentoring activities at conferences, 19 tutorials and 9 talks at summer schools
- 43 grants, contracts and gifts

Full CV available at http://idm-lab.org/cv/usc.pdf