



COMPUTING FOCUS

INTERNATIONAL
CONFERENCE

MARCH 21ST
2021

PORTO
PORTUGAL



DEAR READER

Computing technologies affect society and have changed the way humans relate to one another and how they relate to their living environment, as well as how humans organize their work, their communities, and their time.

Computing technologies have provided means of solving specific human society problems. Today, computers are used in almost every facet of society, including commerce and global trade, communication, education, transportation, agriculture, politics, or science, among many other fields.

One of the most important impact on society includes the impact of

computers in human work. Not only have computers changed the way in which workplaces structure their tasks and workers, they have also dramatically changed the work itself. Forms of computer-based automation have been associated with the loss of jobs and certain skills, and the need to master new skills.

At Computing Focus you will learn the amazing future of computing and how you can improve your life based on this brave new world approaching at lightning speed.

Get ready for the amazing future ahead of us...

The World Wide Web, and all other Internet-related technologies have had a tremendous impact on society. Worldwide communication became nearly instantaneous, easy, affordable, and often anonymous. Everyone with internet access can search, share, and transfer information quickly than ever before.

Supported by computation and communication technologies, the internet is having a tremendous impact on society and has totally changed the notion of distance. Also, the Internet has major impact on education and entertainment. New forms of human-computer interaction will bring radical new way to empower the impact of computing on human life.

Also, the impact of computers on lifestyles has largely paralleled the impact of computing on social organisation, work, and personal communication. For example, computers coupled with telecommunications technologies enable today many people to live and work more independently and remotely than ever before.

Our goal, at Computing Focus, is to show you how you can have a better life, and stay ahead of your competition, by learning from the best researchers, and entrepreneur, who are creating new amazing technologies.

Stay on top of the game by participating at the Computing Focus Conference.


OUR VISION



COMMUNITY MAP

NORTH
AMERICA 
USA • CANADA

SOUTH
AMERICA 
BRAZIL • MEXICO
ARGENTINA

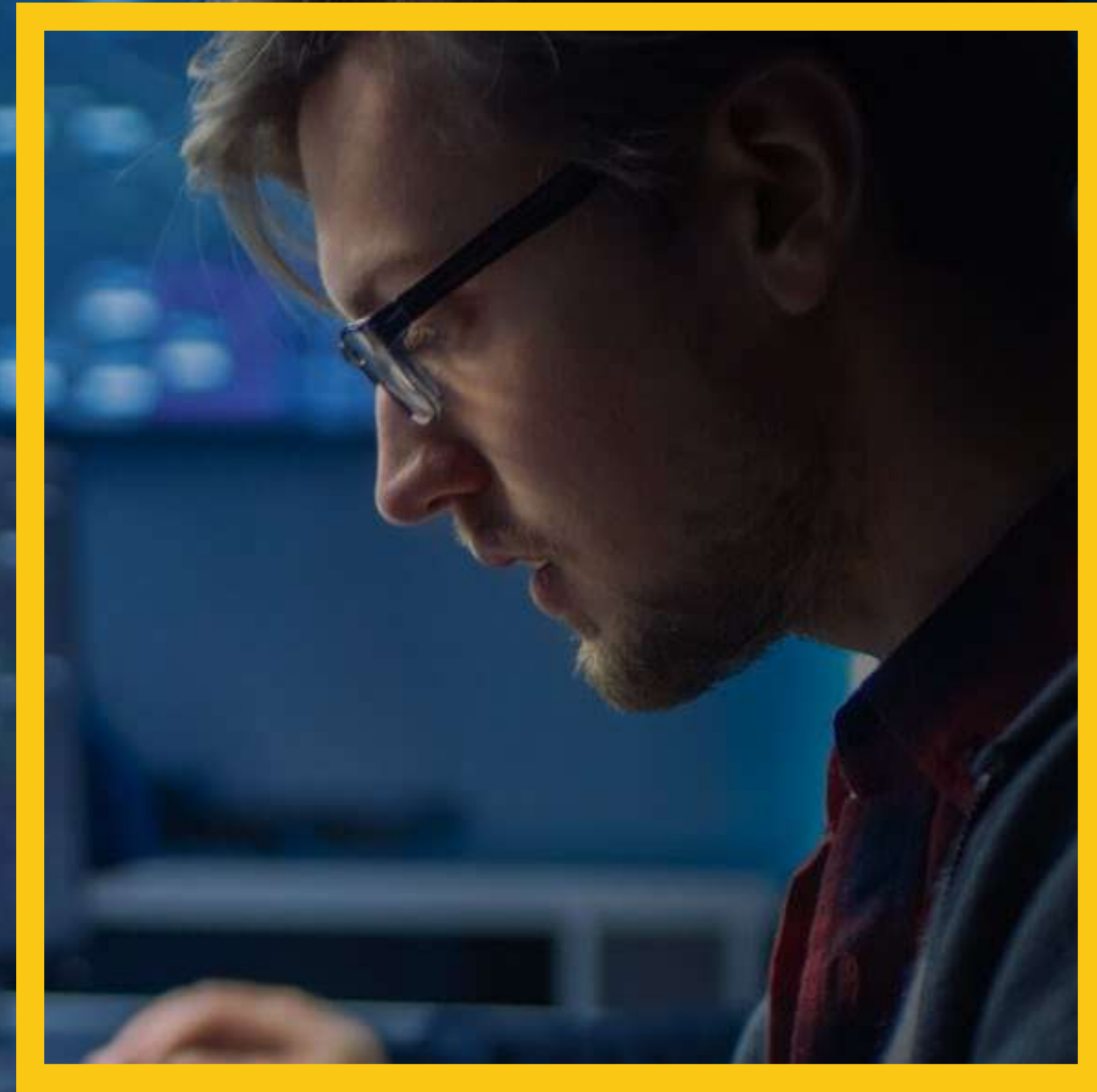
AFRICA 
ANGOLA • MARROCOS

 EUROPE
FRANCE • GERMANY
ENGLAND • ITALY
PORTUGAL • SPAIN
GREECE

 ASIA
INDIA • CHINA
RUSSIA

 OCEANIA
AUSTRALIA
NEW ZEALAND





PROGRAM OVERVIEW

PROGRAM OVERVIEW

MORNING



Interactive page,
click to go to
the Speaker



8:30 REGISTRATION

09:00 - TALK



**Carlos
Azevedo**

Cloud Computing, Machine to Machine, Knowledge Management, High Performance Computing, Big Data, Smart Cities, the Internet of Things, Mobile Applications, Software Engineering and Quality, Social Computing.



10:00 - TALK

COMPUTER VISION



**Jack J.
McCauley**

The interaction between humans and computing platforms is extremely important. You will learn about Human Computer Interaction, such as Computer Vision, Robotics, Virtual Reality, Security, Geographic Information Systems, Video Analysis, Medical Diagnosis, Segmentation Techniques, Image Processing, Augmented Reality



11:00 - TALK

COMMUNICATION BETWEEN DEVICES



**Shai
Machnes**

Communication between devices is fundamental in the modern world and the future of computing. On the topic of Connected Machines you will learn about: Satellite Communication Systems, Networking, Wireless/Mobile Communication, 3G/4G Network Evolutions, Mobile Adhoc Networks, Cognitive Radio, Electronics, Communication Protocols.



12:00 - TALK

INTELLIGENT COMPUTING



**Dr. Justyna
Zander**

Intelligent computing is also a very hot topic. At computing focus you will learn about: Artificial Intelligence, Expert Systems, Agents and Multi-agent Systems, Neural Networks, Fuzzy Logic, Intelligent Systems, Natural Language Processing, Data Mining, Support Vector Machines, Sentiment Analysis, Machine Vision, Ambient Intelligence.



12:30 LUNCH BREAK

PROGRAM OVERVIEW

AFTERNOON



Interactive page,
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the Speaker

14:30 - TALK

COMPUTING AND EDUCATION



**Christopher
Altman**



The impact of computing in education is of crucial importance to our mission. At computing focus you will learn about e-Learning Tools, Mobile Learning, e-Learning Organisational Issues, Gamification, Collaborative Learning, Curriculum Content Design, Educational Systems Design, Virtual Learning Environments, Web-based Learning, Delivery Systems and Environments, e-Business.

15:30 - TALK

BUSINESS AND COMPUTING



**James
Hughes,
Ph.D.**



Business and computing have an ever increasing intertwined role in society. You will learn about e-Business Models, e-Commerce Application Fields, e-Commerce Economics, e-Commerce Services, Digital Marketing, Enterprise Resource Planning, Data Analysis, Virtual Organisations, Business Intelligence, Web Analytics.

16:30 - TALK

PRIVACY AND COMPUTING



**Nuno
Martins,
Ph.D.**



Another major trend in computing is related to Privacy. You will learn about Surveillance, Biometrics, Internet Security, Electronic Data Interchange (EDI), Web Services and Performance, Secure Transactions, Cryptography, Secure Protocols, Cyber Security, Communications.

17:00 - TALK

OTHER TOPICS



**Steven A.
Garan,
Ph.D.**



Other topics on the conference include: Quantum Computing, Sensing and Sensor, Networks, E-Waste, Green Computing, Smart Grids, Design Automation, Digital Circuits, Analog Circuits & Signal Processing, Computer Aided Network Design, Assembly and Packaging, Systems Architectures, e-Learning.



**17:30
CLOSING
CEREMONY**

SPEAKERS





Founder and CEO of EDL

GIORGIO GAVIRAGHI

Giorgio Gaviraghi received his Architectural degree from the Milan Polytechnic. He has since taken part in a number of graduate courses in management, marketing and design in several major universities.

At first as Project Architect, later as Project Manager, where he was responsible to deal with international projects for the Austin Co. an international design and construction company, he has built a distinguishable career across the globe. He has acted as CEO for international companies operating in Europe, the US, Latin America and the Middle East in the field of design and construction, aerospace facilities, real estate and touristic resorts development.

In several capacities he was responsible for major initiatives, some worth over 5\$US, such as the design and project management for the reconstruction of thousands of buildings damaged by the Friuli earthquake, an aerospace facility for commercial aircraft final assembly for Aeritalia – Boeing, an aircraft overhauling facility for HAI in Greece, advanced testing facilities for SDI initiative in the US, high rises buildings in New York, several touristic resorts in Sardinia and the Red Sea region.

An achiever of international competitions in innovative products and systems for industrial design. Giorgio has specialized in space architecture for advanced projects and proposals for major space agencies. Winning as tutor for college and high school students over 18 prizes in international space settlements and space related projects.

Partner of the MAAT project consortium for revolutionary airship-based air transportation system sponsored by the EU. - Founder of the Star Voyager organization for the advancement of space development and interstellar travel. Founder and CEO of edl (exponential design lab) in Latin America specialized in advanced and global projects. Author of over 80 papers ranging from space, transportation, city planning, design and other topics, including authoring articles and books, the latter Global Challenges by Lambert Pub.

Delivered several courses at universities in Europe and Latin America. Actually professor at UFMT in Brazil, teaching Exponential Creativity a disruptive post graduate course



Physicist, specializing in algorithmic optimization and control of quantum system

SHAI MACHNES

Dr. Shai Machnes is a physicist, specializing in algorithmic optimization and control of quantum system. His long-term goal is to create an AI physicist – giving computers the tools to analyze and control complex physical systems.

Working at Saarland University, Germany, he is currently leading the software side of the EU's OpenSuperQ research project – an effort to build a 100-qubit superconducting quantum computer, far surpassing the capabilities of the world's fastest supercomputer.

Born in Israel, Shai served for 5 years in the Israeli navy as a computer programmer. After spending a few years in the internet startup world, he got his Ph.D. in physics from Tel-Aviv University. Since then he has been busy trying to teach computers how to do his job for him.

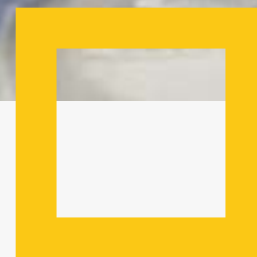


Innovator in Residence at the Jacobs Institute for Design Innovation

JACK MCCAULEY

Jack McCauley is an Innovator in Residence at the Jacobs Institute for Design Innovation, where he mentors students, lectures in courses focused on product design and design for manufacturing, and leads research and development projects focused on applications of augmented, virtual, and mixed reality for design professionals and students.

McCauley graduated from Berkeley Engineering with a B.S. in Electrical Engineering and Computer Science in 1986, and credits the time he spent at Berkeley as an undergraduate with helping to ignite his career. McCauley's inventions, intellectual property and patents bridge diverse technologies. He was one of the inventors of the Universal Serial Bus (USB) specification. He created the original scrolling feature for a computer mouse. As director of research for the electronic entertainment company, RedOctane, he was the chief engineer behind the Guitar Hero game series, as well as at least eight other highly successful digital games. In 2012, McCauley co-founded Oculus VR and manufactured Oculus Rift, the head-mounted virtual-reality display. Oculus was later acquired by Facebook.



Founder, entrepreneur, public speaker, inventor, and an established scientist

JUSTYNA ZANDER

Dr. Justyna Zander joined NVIDIA in late 2016 to work on autonomous driving and AI. In 2018, she was listed at Business Insider's annual list of the Most Powerful Women Engineers. In 2017, she won SWE Emerging Leader Award (for earning international recognition for breakthrough work in computer science and engineering; and for dedication to exploring the impact of computational technology advances on society).

In 2016, she was a Software Architect and Technology Lead in autonomous driving at Intel. Before, she spent over a year working on self-driving cars, ADAS, and functional safety as a senior consultant in Germany. She engaged with Fortune 500 companies including most prestigious automotive OEMs. Earlier, she was representing MathWorks, Inc. as a team lead running a project on Smart Emergency Response System 2013-2015, a US White House initiative. Before, she spent three years as a postdoctoral research scientist at Harvard University and seven years as a senior scientist at the Fraunhofer Institute in Germany.

She holds PhD, MSc, and two BSc degrees in Computer Science and Electrical Engineering.

Her expertise includes modeling, simulation, mapping, deep

learning, validation and verification, functional safety, computing platforms, and rapid prototyping with worldwide operations focus.

She holds 7 patents, 12 patent applications at USPTO, coauthored over 40 publications, 3 books, and was cited nearly 1000 times. Recognized internationally with countless awards (IEEE, European Union, NIST, SWE, SAE, Falling Walls, etc). Regularly serves as a technical committee member for more than 50 journals and conferences. Advises government strategy and research roadmaps; invited by NSF, EU Commission, national councils; member of Steering Committees.

Founder, entrepreneur, public speaker, inventor, and an established scientist. She also graduated from Singularity University, Mountain View, CA, USA in a program on exponentially-growing technologies.

In short: Technology director. Initiatives leader and team lead for large high-tech geographically-distributed systems. Public speaker, author, inventor, flexible, intense, passionate. Personality biased toward creating solutions.



American physicist, quantum technologist, international diplomat and NASA-trained commercial astronaut

CHRISTOPHER ALTMAN

Christopher Altman is an American physicist, quantum technologist, international diplomat and NASA-trained commercial astronaut who began his scientific career with a Guinness world record-holding artificial intelligence project and a NASA/USAF-supported time travel division at multidisciplinary “Deep Future” research institute Starlab, featured in a Discovery Channel Special and the Guinness Book of World Records.

Christopher has held positions at advanced research and development centers including multidisciplinary “Deep Future” research institute Starlab, NASA Ames Research Center, and Kavli Institute of Nanoscience. He was Chairman of the UNISCA First Committee on Disarmament and International Security, as senior scientist at an astronaut training base on a volcano in Hawai’i, and as part of the US Government’s fast-track QuIST Program in the global race to reach quantum supremacy. He serves as Chief Scientist for renewable energy cryptocurrency SolarCoin and is Cofounder and Chief Scientist for open source nonprofit blockchain and SolarCoin affiliate, ElectricChain.

As Director of the Board of the world’s first commercial astronaut corps, Association of Spaceflight Professionals (ASP) and Director with Tau Zero Interstellar Foundation, successor to the NASA Breakthrough Propulsion Physics Program, Christopher’s research spans the gap between quantum technology and next-generation spaceflight. His inaugural keynote address as a candidate with the commercial astro-

naut corps was broadcast live to 108 sister cities around the world. NASA allocated funding to the corps for its first manned space missions the following spring.

His contributions have been recognized with honors and awards including the Japanese Fulbright Fellowship, the Guinness Book of World Records, the annual RSA Information Security Award for Outstanding Achievement in Government Policy with his project Converging Technologies: The Future of the Global Information Society, a joint US Department of Defense-Department of Energy Salishan High-Performance Computing graduate fellowship, consecutive Templeton fellowships in theoretical physics with the Zeilinger research group in Austria, appointments to diplomatic and humanitarian aid missions worldwide as Extraordinary Ambassador at Large for Peace, Human Rights, Space and Next-Generation Technologies, Special Envoy to the United Nations and the European Union.

A physicist and philosopher by training, Christopher’s research interests include breakthrough physics, quantum technology, next-generation spaceflight, quantum entanglement and teleportation, ER=EPR, retrocausality, and the future of the Quantum Internet. He is a glider pilot, motorcyclist racer and enthusiast, SCUBA diver and rock climber, speaks Japanese, Dutch, and basic French, and is proficient in Muay Thai kickboxing, judo, Gracie jiu jitsu, and kendo. In Japan, he attained the rank of shodan, or first degree black belt in Kyudo, traditional Japanese archery.



Executive Director of the Institute for Ethics and Emerging Technologies

JAMES HUGHES PH.D.

James Hughes Ph.D., the Executive Director of the Institute for Ethics and Emerging Technologies, is a bioethicist and sociologist who serves as the Associate Provost for Institutional Research, Assessment and Planning for the University of Massachusetts Boston. He holds a doctorate in sociology from the University of Chicago, where he also taught bioethics at the MacLean Center for Clinical Medical Ethics. Dr. Hughes is author of *Citizen Cyborg: Why Democratic Societies Must Respond to the Redesigned Human of the Future*, and is working on a second book tentatively titled *Cyborg Buddha*. From 1999-2011 he produced the syndicated weekly radio program, *Changesurfer Radio*.

Dr. Hughes is a Fellow of the World Academy of Arts and Sciences, and a member of Humanity+, the Neuroethics Society, the American Society of Bioethics and Humanities and the Working Group on Ethics and Technology at Yale University. He serves on the State of Connecticut Regenerative Medicine Research Advisory Committee (formerly known as the Stem Cell Research Advisory Board).



Polymath, researcher, entrepreneur, and a healthy life extension advocate

NUNO MARTINS, PH.D.

Nuno is a polymath, a researcher, an entrepreneur, and a life and health extension advocate. As a polymath, he usually likes to make use of different subject areas, drawing ideas and concepts from different bodies of knowledge to solve specific problems.

As an illustrative example, his published papers involve several fields of research, for example: quantitative neuroscience, computer science, nanotechnology, robotics, and others. Several previous education experiences have supported and nurtured his polymath approach to problems. As a researcher, he is interested in any scientific, engineering, or technological development with potential applications or consequences for healthy life extension. Along these lines, he is currently a focused on developing technologies for human healthy life extension.

In business, he created his own company to fund his education. Along the way, several academic awards and grants contributed to his necessary funding strategy. The growth of his original company permitted him to create a business group embracing a set of different companies that operate in a large spectrum of business sectors, including: business

consulting, education, information technologies, healthcare services, online sales, and several others.

On life extension related topics, early in his life, motivated to take control of his own health he decided to make several courses related to health-care, body training and nutrition. Thus, he completed several courses related to life and health care, for example, he is a swimming teacher, a professional tennis teacher, a body-building and aero- fitness teacher, a power-lifting professor, and he completed also several courses in nutrition and sleep optimization.

As public speaker Nuno participates in conferences and meeting providing high quality professional presentations in his style. One of Nuno's public appearances was on a groundbreaking large conference (attended by approximately one thousand attendees), where Nuno presented along with amazing celebrities, such as: the visionary billionaire Peter Nygard, the always inspiring Suzanne Somers, and the famous futurist Ray Kurzweil, among many other celebrities... Nuno makes easy the understanding of technical challenging subjects , making accessible to the general audience the most difficult problems.



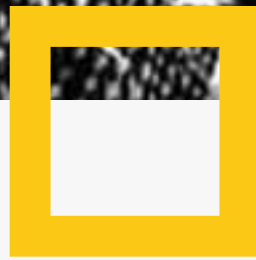
Director of Bioinformatics at CREA

STEVEN A. GARAN, PH.D.

Steven A. Garan is the Director of Bioinformatics at CREA and serves on its Advisory Board, he is also a researcher at the Lawrence Berkeley National Laboratory. While at the University of California, Berkeley, he played a major role in the invention and the development of the Automated Imaging Microscope System (AIMS). While at UC Berkeley, Garan collaborated for many years with a group from Paola S. Timiras' lab, on the role that caloric restriction plays in maintaining estrogen receptor-alpha and IGH-1 receptor immunoreactivity in various nuclei of the mouse hypothalamus. Garan was also the director of the Aging Research Centre, and is a leading scientist in the field of aging research. His numerous publications, include articles on systems biology, the effects of caloric restriction on the mouse hypothalamus and on the Automated Imaging Microscope System (AIMS). He is best known for the coining of word "Phenomics", which was defined in an abstract titled: "Phenomics: a new direction for the study of neuroendocrine aging", that was published in the journal *Experimental Gerontology*.

Steven A. Garan, was the lead scientists that developed the AIMS system along with Warren Freitag, Jason Neudorf and members of the UC Berkeley lab where AIMS was developed and utilized. Many journals articles have been published

about the system and the results that it produced. Since the completion of the first version in 1998, newer versions were developed, with the final version being completed in 2007. Empowering investigators to accurately count specific cell populations is essential to all fields of neurobiology. While computer assisted counting technology has been in use for over a decade, advances in an Automated Imaging Microscope System (AIMS), now insure 97% accuracy when comparing computer counts to human counts for both nuclear and cytoplasmic stained tissue. More importantly, regional analysis can now be customized so that only cell populations within specified anatomic regions will be targeted for counting, thus reducing the background noise of non-immunoreactive cells when characterizing specific cell populations. This application was recently used to successfully map the density and distribution of both nuclear expressed estrogen receptor-alpha and cytoplasmicly expressed IGF-1 receptor in specific hypothalamic nuclei. Furthermore, AIMS can now detect intra-hypothalamic differences in receptor expression and measure phenomenon such as lateralization. By using this technology, the evaluation of tissue-level biology can be used to establish neuroendocrine biomarkers of aging, and analyze the neuroendocrine effects of caloric restriction and gene knockout models that extend the lifespan.



Carlos is a young and passionate leader in AI and Data Science building purposeful products with lasting societal impact at Coteminas.

CARLOS AZEVEDO

Carlos is a young and passionate leader in AI and Data Science building purposeful products with lasting societal impact at Coteminas, one of the most digitalized textile industries in the world. As Cotemina's director of data science, he is behind the AI team building Persono, a disruptive initiative that seeks to transform human conscience about the power of Sleep to live a better and significant life. Carlos has also been responsible for innovative data-driven products

and new technologies in the rental, retail, mobile, and IoT industries, leveraging algorithms to empower costumers to be in control of their own purchase decisions, minimizing consumerism and maximizing people's well-being. He holds a PhD in Computer Engineering and was honored with the best Brazil's engineering thesis in 2014 by the Ministry of Education. As a disruptor, his current life ambitions include leveraging AI to disrupt education, science, and governance.

DAVID S. CHEN, PH.D.



CEO, Summit Bridge Group Inc.

Dr. David S. Chen started his career in 1984 with General Motors Research Laboratory in Michigan, developing AI computer software for manufacturing automation. From 1994 to 2004, he worked for GM in China, where he played a key role in areas of joint venture negotiations, merge/acquisition projects, product portfolio planning and development, and joint venture management. From 2004 to April 2011, Dr. Chen, as Vice President of GM China and General Manager of GM Beijing Operations, had the responsibility for public policy, government affairs, and corporate social responsibility for GM in China.

In May 2011, Dr. Chen joined Microsoft. He serves as Vice President of Microsoft, General Manager of Corporate, External, and Legal Affairs for Great China Region (GCR), including China, Hong Kong and Taiwan. His responsibility includes promoting cooperation between Microsoft and Chinese government, developing new business initiatives, implementing corporate social responsibility and philanthropy projects, and ensuring Microsoft's business conduct complies with local law and regulations.

During his 7 years with Microsoft, Dr. Chen has been instrumental to develop new business initiatives in China including public cloud services (Office 365 and Azure), personal enter-

tainment system (Xbox), AI applications, merge/acquisition deals, and internet related business initiatives such as Skype and Bing search. Dr. Chen also plays a key role in supporting Microsoft deploying modern IT solutions in smart city projects to enable the digital transformation of the Chinese economy. He also facilitates US-China dialogues over cybersecurity and internet governance by creating a platform where candid discussions can take place among government officials, industry associations, companies, and academicians from US and China. Through a three-year tireless effort, Dr. Chen helped to place Windows 10 back to Chinese government procurement list after a rigorous cybersecurity review. Dr. Chen also led the Microsoft China team through the anti-trust investigations.

Dr. Chen founded The Summit Bridge Group in 2018, leveraging his rich experiences, to help MNCs to expand and grow business in China as well as to help Chinese companies to expand business overseas. Dr. Chen has a doctor degree in computer science from the University of Michigan, master degrees in mathematics and electrical engineering from Purdue University, and a Sloan master degree of management from Stanford University. He earned his bachelor degree in mathematics from East China Normal University.



Researcher, Inventor, Innovator & Entrepreneur In Exponential Technologies

JOVAN REBOLLEDO

I have been applying AI to a series of diverse problems, from neuroscience, to space, to genomics, to cancer, to education. I am have been published in international peer-reviewed journals, presented at conferences and written and get patents. Developed and applied machine learning techniques to research in multiple disciplines. Helped in design and development of the core technologies (in AI & robotics) for 50+ startups/ tech projects coming from Singularity University, located inside NASA Research Center, at Silicon Valley, in California, USA. Inspired and transformed mindsets of Japanese

students to produce outstanding startup projects (@KeioUniversity). Led and created groups and communities since junior-high school, and from teenagers to graduate students, in different countries. Selected and interviewed by the Cabinet of Japanese Government for innovation in Japan. Taught since teenager from children to graduate students in different areas, from rural areas in Mexico to Stanford and NASA Ames Research Park. Worked with USA Astronaut and co-led workshops with IBM Watson creator.



MIGUEL PAIS-VIEIRA

His current line of research is focused on brain-machine interfaces for sensorimotor integration and rehabilitation in humans. This approach combines the use of real-time analysis and decoding of EEG activity to control an exoskeleton while the subject receives tactile and thermal feedback.



Assistant Professor at the Instituto of Biomedicine – iBiMed, University of Aveiro, Portugal



TICKET OPTIONS

TICKET OPTIONS

ESSENCIAL

€745

- ▣ Full access to all talks
- ▣ Full access to all panels of debate
- ▣ Full access to Expo Area

BUY TICKET

VIP

€1230

- ▣ Full access to all talks
- ▣ Full access to all panels of debate
- ▣ Full access to Expo Area
- ▣ 3 nights of accommodation
- ▣ 3 breakfasts
- ▣ Access to the 2 networking lunches with speakers
- ▣ **VIP** seating

BUY TICKET

PREMIUM

€2460

- ▣ Full access to all talks
- ▣ Full access to all panels of debate
- ▣ Full access to Expo Area
- ▣ 3 nights of accommodation
- ▣ 3 breakfasts
- ▣ Access to the 2 networking lunches with speakers
- ▣ **PREMIUM** seating
- ▣ One VIP Gift Ticket for friends

BUY TICKET

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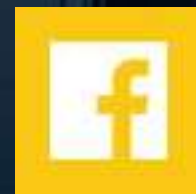
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