



Christopher Altman

Summary

Multidisciplinary, world-record holding experience and expertise. Senior executive with extensive background as a principal scientific investigator, leading multidisciplinary teams of scientists, diplomats, researchers and engineers; field-testing next-generation technologies with academic, government, and military domain experts; reporting over-the-horizon technology advances to principal leadership at US national labs, research and funding agencies.

Mission Statement

"We are at the very beginning of time for the human race. It is not unreasonable that we grapple with problems. But there are tens of thousands of years in the future. Our responsibility is to do what we can, learn what we can, improve the solutions, and pass them on."

– Richard Feynman

From early childhood, I set out to convey a [profound and positive impact](#) on the long-term future of humanity, to making the world a better place for the generations to come, as we continue forwards in our collective journey, scaling the cosmic ladder of evolution, progressing onwards and expanding outwards to other worlds to become a multiplanetary species—[as Earth becomes a destination](#), as well as a point of origin. I committed my life purpose to the singular objective of ensuring that integrity, balance and ethical responsibility hold paramount importance as priorities, in both scientific research and in principal government leadership, as we're collectively propelled forwards as a species. With unprecedented leaps and bounds in progress and in our scientific understanding—enabled by the development of converging and expanding exponential technologies—newfound, unexpected discoveries await just over the horizon.

Rapid advances in fields such as artificial intelligence, biotechnology, molecular nanotechnology, neuroscience, renewable energy, spaceflight, supercomputing and quantum technologies—each enabled by the rapid technological progress of Moore's Law doublings in computer processing power, speed and complexity—will soon converge to confer radical changes to our society over coming decades, as we move forwards in the collective transition towards the dawn of a post-scarcity economy. The future is unbounded. The responsibility falls upon us to ensure that its limitless potential is filled with dreams of hope, happiness, freedom and fulfillment.

Key Highlights | Areas of Impact

Artificial Intelligence

Recruited to multidisciplinary, “Deep Future” research institute [Starlab](#), in partnership with Oxford, MIT and Ghent University, where our custom-built supercomputing project was recognized in the 2001 Guinness Book of World Records as the “World’s Most Complex Artificial Brain” and our NASA/USAF-funded time travel division was featured in a [Discovery Channel Special](#). Recognized as one of three graduate students most likely to impact the future of the field at [Salishan](#)—the US Government conference on high-performance computing—sponsored to attend conferences and senior-level administrator briefings at NSA headquarters, Fort Meade, Maryland, attend the World Technology Summit in London, and tasked as a delegate to the French *Sénat* to provide testimony on the future of technology and how it will transform our lives over coming decades.

Converging Technologies and Information Security

Selected as recipient of the [2004 RSA Award for Outstanding Achievement in Government Policy](#) for my Chair Report to the UN General Assembly on the promise and perils posed by rapid advances in converging technologies—which was read by the UN Secretary General, at the Executive Office of the President, by National Security Advisors, at Presidential and Prime Minister’s offices around the world. The key findings of this report were instrumental in building political momentum and influencing Congressional policy to establish the foundations for United States Cyber Command.

Inaugural Department Chair, faculty advisor and teaching fellow at Silicon Valley’s [NASA Ames Research Center](#) for a think tank that selected forty of the top candidates from over 1600 applicants worldwide. Our program was aimed to assemble, educate and inspire a cadre of leaders—the presidents, chancellors, and national agency directors of tomorrow—to facilitate the development of exponentially advancing technologies, and to apply, focus and guide these tools to address humanity’s grand challenges to positively impact the lives of one billion people over the course of ten years.

Government Leadership

While still an undergraduate, I was selected as one of three [AIEJ Japanese Fulbright fellowships](#) worldwide aimed to recruit and train the next generation of global leaders. In the aftermath of the September 11 attacks, I volunteered and was subsequently elected to serve as [Chairman for a UN Disarmament and International Security Committee](#), leading more than 500 diplomats to address and combat the threats of international terrorism, global and regional nuclear security, and information warfare.

In Black Rock City, at National Defense University and the Pentagon, I worked [side-by-side](#) with interagency DoD/US Intelligence Community leaders and technical experts under mentorship of [Admiral Linton Wells, II](#), USG Force Transformation Chair, former Deputy Secretary of Defense and DoD Chief Information Officer, to field-test next-generation humanitarian aid and disaster relief technologies for deployment to stressed populations in austere environments around the world.

Appointed by the International Human Rights Organization as [Ambassador Extraordinary at Large for Peace, Human Rights, and Next-Generation Technologies](#)—then as Special Envoy to the United Nations and the European Union—with invitations from government representatives in Abu Dhabi and Morocco to encourage STEM education and to inspire the next generation of explorers to reach for the stars.

Quantum Technology

As part of the US Government's fast-track Quantum Information Science and Technology Program in the global race to harness the revolutionary promise and potentials of quantum technology, I was recruited for a postdoctoral-level fellowship to provide timely, concise, over-the-horizon [national roadmaps](#) and technology reports to principal US national policy and funding agency directors at DARPA and NSA ARDA/DTO, traveling to leading research institutions around the world. The end product of these reports served as a prototype for the foundation of the US Government's high-level national Quantum Roadmap—an accolade conveyed directly by the Chair of the Roadmap, [Richard Hughes](#), Director of the [Quantum Institute](#) at Los Alamos National Laboratory.

Recipient of [two consecutive Austrian national research fellowships](#) to work with Anton Zeilinger, one of the most renowned physicists in the field. [Principal investigator](#) for an award-winning team of multinational researchers—the inventors and world-record holders of [quantum teleportation](#) and [space-based quantum communications](#)—sourced from NASA JPL, TU Vienna and PISCES, a NASA, ESA, CSA and University of Hawaii consortium, under mandate from DARPA, the NASA Institute for Advanced Concepts, and NASA's Office of the Chief Technologist to develop cryptographically impenetrable, space-based quantum communications to secure NASA space assets and the lives of NASA astronauts.

Under support of a graduate research fellowship in applied physics and nanoscience at the Kavli Institute of Nanoscience, Delft University of Technology in The Netherlands, I conducted experimental fieldwork in quantum entanglement, secure communications, optical fabrication technology, metrology, microlens array research, and coherent optics applications, introduced a novel, fault-tolerant adaptive learning protocol at the intersection of leading approaches in quantum topology and neural networks, and led international research and consulting initiatives with ATIP Tokyo in East Asia, at FISBA Optik in Switzerland, at NASA Ames Research Center in Silicon Valley, and at TU Vienna's International Akademie Traunkirchen in Austria.

Next-Generation Spaceflight

NASA-trained commercial astronaut, formally selected by an evaluation committee of NASA astronauts to train for suborbital and emerging commercial orbital space exploration programs at Johnson Space Center, Ames Research Center, and leading commercial providers around the country, under mentorship of [General Pete Worden](#), PhD, former Director of NASA Ames Research Center, Vice Director of Operations and Commander of the 50th Space Wing at USAF Space Command.

Lunar analogue tests and field training with NASA, CSA, DLR, ESA, and JAXA at the Pacific International Space Center for Exploration Systems, PISCES, an analogue lunar station on the slopes of Mauna Kea in Hawaii where research is conducted, robotics are tested, next-generation technologies are developed, and astronauts are to be trained to live and work on the Moon and on Mars.

Appointed to the Board of Directors for [JUSTSAP/PISA](#), an eleven-nation strong, Prime Minister-level space, technology and national security alliance, with senior-ranking representatives from the White House, the Department of State, DARPA and USAF Space Command, and invited by Tokyo Institute of Technology and Okinawa Institute of Science and Technology by conference founder Osamu Odawara to develop a next-generation astronaut/survival training program at Shimoji Airport in Okinawa under the new US-Japan "2+2" defense initiative.

As flight member and astronaut candidate, then Director of the Board and Chief Science Officer for the world's first commercial astronaut corps, I helped develop the core curriculum and astronaut training program for a corps numbering over 200 PhD-level scientists, researchers and engineers based in 58 countries around the world; expand the organization's strategic direction and global outreach, while serving as a leading advocate to inspire the next generation of the potential and transformative impact enabled by widespread access to space. Our corps has completed several successful "Zero G" microgravity research campaigns, directed research experiments in orbital satellites and on the ISS, and received several million dollars in NASA funding to conduct manned research experiments on the first generation of suborbital vehicles as soon as they come online.

Frequent keynote speaker at international conferences including Mobile Monday Amsterdam, the "European TED," broadcast live to 108 cities worldwide. Further Future, "TED Meets Burning Man." [Closing Speech](#), Hive Global Leadership Forum, highlighted as [featured global leadership alumni](#) and in the international press. Invited speaker and member of the Board of Directors for [TEDxBeacon Street](#), in partnership with MIT Media Lab. Last year's event was broadcast to over 25 Million viewers around the world; this year's event is expected to reach out to even more. Well-known speakers in the series include Bill Gates, and NASA Astronaut Sunita Williams, who called down in a live feed from the International Space Station.

Renewable Energy and Blockchain Technologies

Co-founder and Chief Scientist for multibillion dollar climate change initiative and renewable energy cryptocurrency [SolarCoin](#). Cofounder and Chief Scientist for [ElectriCChain](#)—the self-organizing, decentralized swarm intelligence, Internet of things (IoT) that forms SolarCoin's global blockchain backbone.

SolarCoin's mission is to accelerate our societal transition to a post-scarcity economy by encouraging solar energy to initiate the energy singularity—the transition from fossil fuels to a sustainable, renewable energy economy. The cryptocurrency was created to encourage global solar electricity generation and reduce the impact of climate change.

The supply of SolarCoin has been designed to last forty years, delivering incentives for generating 97,500 TWh of solar electricity. Each coin issued to renewable energy producers represents a carbon offset of 680 kilograms of carbon dioxide. To date, the project has granted more than 11 TWh of solar power across 68 countries—the equivalent energy consumed by 11 million US households in a month—well over enough to power the city of Amsterdam and its residents for a full year.

Counting more than thirty international affiliates and seven million real-time solar monitoring stations in sixty-two countries around the globe—estimated by UN projections to grow to more than 200 Million over the next decade—the program has been recognized by the United Nations and the International Renewable Energy Agency as the lowest carbon currency, the largest environmental monitoring experiment, and the largest private renewable energy project in the world.

With a total market supply of more than US \$40 Billion to be distributed over the next 35 years, the currency places in the top ten cryptocurrencies by total market value behind Bitcoin, Ethereum and Ripple. The project has been covered extensively by international press in thirty countries, with more than 100 featured publications in sources such as *Forbes*, “How Blockchain is Incentivizing a 5,000 Gigawatt Quest to Save the Planet.”

