Brian Von Herzen, Ph.D.

3 Little Harbor Road, Woods Hole, MA 02543 +1-650-942-9630
Brian@ClimateFoundation.org

Objective: Leading the development of clean technology, renewable energy, best practices in building sustainable communities, mitigating the effects of climate change, and sustainable new approaches to recycling CO_2.

Education

Year	College/University	Degree
2013- 2017	Woods Hole	Four 10-week intensives in marine biology
2009-present	Guest Lecturer at Stanford University, Caltech, Harvard, Marine Biological Laboratory	Project lead, Stanford Cleantech programs: home energy storage system, solar thermal cooling system, cleantech entrepreneurship, Marine Permaculture, restoring depleted soils using Terra Preta microbial permaculture growth.
1989	Caltech	Ph.D., Computer Science, Electrical Engineering and Planetary Science, Ametek Leadership Institute, Hertz Foundation Fellowship, Hughes Doctoral Fellowship, Atmospheric Chemistry Climatology and Radiative Transfer, Mesoscale Atmosphere/Ocean Dynamics
1984	Caltech	M.S.., Computer and Planetary Science Hertz Foundation Fellowship
1980	Princeton University	AB, Physics, Magna Cum Laude //Dissertation : The Response of Global Climate Models to Orbital Variations analyzed global climate responses to small perturbations.

Professional Summary

Time: 2007 to present // The Climate Foundation // Location: Woods Hole, MA

Position: Executive Director and Founder

- Developed the world's first Marine Permaculture for deployment in the Indian Ocean, 2017
- Developed the first biochar reactor for Nairobi and North American Deployment, Gates Phase 1&2 grants, CEC grants in 2012, 2014
- Development of seafloor compressed-air energy storage for use in time-shifting renewable power and electrical peak load leveling.
- Awarded Phase 2 grant from The Bill and Melinda Gates Foundation to develop biochar technology for developing nations.
- Developed and presented Coral Bleaching Reversal and SeaWater Air Conditioning infrastructure presentation to US Coral Reef Task Force and Guam military personnel on SWAC technology and its relationship to coral reef preservation (2011 Guam and 2012 Samoa).
- Lead on Discovery Channel documentary "Project Earth: Hungry Oceans" a 1-hour science documentary televised nationwide Sept 5, 2008 on oceanic carbon dioxide recycling
- Developed atmospheric carbon reduction methodologies, including low-intensity free-range aquaculture technology, eliminating the need for nets, deep-water moorings and external feed.

Professional Summary, continued

- Reversed coral bleaching for the first time on a coral reef using thermal management technology: tinyurl.com/2dupg2q

Time: 2010 to present // Bright Energy Storage Technologies, LLP // Location:Denver, CO

Position: CTO, Co-Founder, Board of Directors

- Development of seafloor compressed-air energy storage technologies for use in time-shifting renewable power and electrical peak load leveling.
- Won Iberdrola Perseo Award for best energy storage technology
- ARPA-E Finalist in Grid-Scale Energy Storage
- Mobile and grid-scale energy storage solutions.

Time: 1993 to 2012 // Rapid Prototypes, Inc.// Location: Carson City, NV

Position: CEO and Founder

Rapid Prototypes provides turnkey product design services, including commercial product specifications and fully functional engineering product prototypes. Served as engineering leader on projects managing over a dozen engineers working in the technologies for new electronic products in networking, consumer electronics and other commercial products. Also developed the world's highest performance commercial FPGA applications. Over 50 projects for over forty clients, including:

- Xilinx, Inc.—Representation at OIF, NPF, IEEE and RapidIO—Chairman of the Interoperability Working Group of the Optical Internetworking Forum, 2003-2007 responsible for industry demonstration of 10Gb/s networking // Woods Hole Oceanographic Institution // Walt Disney Feature Animation // Nvidia, Polaroid // Rockwell International Corporation //California Institute of Technology // Microsoft Corporation, Intel, Synaptics, Inc // General Dynamics, Interval Research Corporation

Design achievements include:

- Sparse Chevron™ patents for Xilinx Virtex-4 devices. // Demonstration of 10Gb/s optical and copper serial links between Xilinx and Altera FPGA's and ASSP/ASIC devices including AMCC, Vitesse, NEC, Intel, Broadcom, PMC etc. // SDRAM IP Cores for Xilinx FPGA's, a high performance SDRAM controller for the Xilinx Virtex family of FPGA's. // A FastRAM board designed for high memory bandwidth // Developed a high-speed FPGA array, fully parallel cross-correlator. // Designed and developed a 60-Hz vector quantization video codec ASIC using FPGA rapid product prototyping techniques. //Architected and built a reconfigurable computing machine using a two-dimensional toroidal array of 32 FPGA and static memory devices for Interval Research Corporation //Built a 10-GIPS depth-from-stereo video processor using the reconfigurable computing machine. // Only external consultant to win Xilinx Ross Freeman Award

Time: 1977 to 1980 //Woods Hole Oceanographic Institution

Position: Research Analyst

Analyzed data from NR-1 research submarine, GPC-1 giant piston cores and other physical oceanographic and benthic processes.

Twelve patents issued and a dozen patents pending and eleven publications

References available upon request.