

# Carlo Alberto Amadei

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## WORK and RESEARCH EXPERIENCE

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- World Bank**, Water Specialist Washington DC (US), 2019 to present  
**Harvard University**, Graduate Researcher Cambridge (US), 2014 - 2019
- Managed research projects to fabricate novel membranes to increase efficiency (by 50%) in water separation processes; the projects involved a team composed of four undergraduates and one master's student
  - Established collaborations with governmental agencies (Bureau of Reclamation, Department of Interior)
  - Developed and implemented 2 high-throughput standardization methods for characterizing nanomaterials
- Novartis**, Environmental Defense Fund Fellow Cambridge (US), Summer 2018
- Modeled carbon dioxide emissions in the supply chain to drive sustainable business (15%/year reduction in total emissions)
- Harvard University**, Teaching Fellow Cambridge (US), 2015 - 2017
- Assisted in teaching three undergraduate classes in environmental engineering (water engineering)
- Masdar Institute of Science and Technology**, Research Assistant Abu Dhabi (UAE), 2012 - 2014
- Developed, tested, and analyzed nanomaterials for sustainable energy applications
  - Managed research projects in joint partnerships with American (MIT) and European (Spain) research groups

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## EDUCATION

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- Harvard University** Cambridge (US), 2019  
Ph.D. Environmental Engineering (3.9/4.0)
- Autonomous University of Barcelona**, Barcelona (SP), 2014  
M.Sc. Materials Science and Nanotechnology (9.0/10.0)
- University of Modena & Reggio Emilia**, Modena (IT), 2012  
M.Eng. Environmental Engineering (110/110 cum laude)
- University of Modena & Reggio Emilia**, Modena (IT), 2009  
B.Eng. Environmental Engineering (110/110 cum laude)

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## LEADERSHIP EXPERIENCE

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- Veganali**, Expedition leader Cambridge (US), 2018-2019
- Led the first vegan expedition to Denali (highest peak in North America) to raise awareness on the radical shifts needed in our food systems
  - Documentary on the expedition featured at "Boston Food Veg Fest"
- Harvard Italian Student Society**, Co-Founder & Co-President Cambridge (US), 2016 - 2018
- Established the university-wide society across all Harvard schools (now counting >100 members)
  - Organized panels, networking, and social events (dozen events in the first year, >50 attendees/event)

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## FELLOWSHIPS and AWARDS

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- American Membrane Technology Association**, Fellowship (awarded to 3 students nationwide) 2017  
**Pierce Fellow** (additional scholarship at Harvard University) 2014 - 2017  
**Premio Mussini** for academic excellence (University of Modena, awarded to 5 graduate students) 2012  
**First Place in Engineering Program** for International Students (Beijing University of Technology) 2011  
**Premio di Studio** for academic excellence during undergraduate degree (University of Modena) 2009

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## SKILLS and INTERESTS

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**Computer:** Python, Matlab, Adobe Illustrator Image J, L<sup>A</sup>T<sub>E</sub>X, SAM (System Advisor Model for Solar Tech)  
**Languages:** Italian (mother tongue), English (fluent), Spanish (advanced)  
**Technical:** Engineering of water filtration systems; experience in bottom-up and top-down fabrication; expert user of materials characterization tools  
**Interests:** Mountaineering (summit 6000-meter-peaks), Triathlon (Ironman finisher), travel (45 countries), sustainable business (worked in collaboration with Harvard Business School researchers on sustainable use of resources)

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## PUBLICATIONS and CONFERENCE PRESENTATIONS

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**Publications:** 14 peer-reviewed articles (10 first authors, impact factor range 4-8)  
**Conferences:** 8 presentations in international conferences (5 oral and 3 poster presentations)