

# Carlo Alberto Amadei

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## EDUCATION

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

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## WORK and RESEARCH EXPERIENCE

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<b>Harvard University</b> , Graduate Researcher	Cambridge (US), 2014 - 2019
<ul style="list-style-type: none"><li>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</li><li>Established collaborations with governmental agencies (Bureau of Reclamation, Department of Interior)</li><li>Developed and implemented 2 high-throughput standardization methods for characterizing nanomaterials</li></ul>	
<b>Novartis</b> , Environmental Defense Fund Fellow	Cambridge (US), Summer 2018
<ul style="list-style-type: none"><li>Modeled carbon dioxide emissions in the supply chain to drive sustainable business (15%/year reduction in total emissions)</li></ul>	
<b>Harvard University</b> , Teaching Fellow	Cambridge (US), 2015 - 2017
<ul style="list-style-type: none"><li>Assisted in teaching three undergraduate classes in environmental engineering (water engineering)</li></ul>	
<b>Masdar Institute of Science and Technology</b> , Research Assistant	Abu Dhabi (UAE), 2012 - 2014
<ul style="list-style-type: none"><li>Developed, tested, and analyzed nanomaterials for sustainable energy applications</li><li>Managed research projects in joint partnerships with American (MIT) and European (Spain) research groups</li></ul>	

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## LEADERSHIP EXPERIENCE

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<b>Aqua Novus</b> , Co-Founder	Cambridge (US), spring-summer 2017
<ul style="list-style-type: none"><li>Start-up for sensing contaminants using engineered bacteria. This innovation fills the technology gap in the detection of heavy metals by offering cost-effective (100x cheaper) engineering solutions</li><li>Developed market opportunity, competitive analysis, and business plan, and pitched in front of investors</li><li>Finalist MIT Water Prize, semi-finalist MIT 100k, Harvard Incubation Program, 2nd round MassChallenge</li></ul>	
<b>Harvard Italian Student Society</b> , Co-Founder & Co-President	Cambridge (US), 2016 - 2018
<ul style="list-style-type: none"><li>Established the university-wide society across all Harvard schools (now counting &gt;100 members)</li><li>Organized panels, networking, and social events (dozen events in the first year, &gt;50 attendees/event)</li></ul>	
<b>Harvard Graduate Dormitory Council</b> , President	Cambridge (US), 2015 - 2016
<ul style="list-style-type: none"><li>Managed \$20,000 annual budget for the council representing &gt;400 students living in the residence halls</li><li>Ran monthly meeting and coordinated a team of ten people organizing activities for for the residence halls</li></ul>	

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## FELLOWSHIPS and AWARDS

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

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## SKILLS and INTERESTS

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<b>Computer:</b> Python, Matlab, Adobe Illustrator Image J, L <sup>A</sup> T <sub>E</sub> X, SAM (System Advisor Model for Solar Tech)
<b>Languages:</b> Italian (mother tongue), English (fluent)
<b>Technical:</b> Engineering of water filtration systems; experience in bottom-up and top-down fabrication; expert user of materials characterization tools
<b>Interests:</b> Triathlon (Ironman finisher), travel (45 countries), mountaineering, 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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<b>Publications:</b> 14 peer-reviewed articles (10 first authors, impact factor range 4-8)
<b>Conferences:</b> 8 presentations in international conferences (5 oral and 3 poster presentations)