

Jonathan Simonds

**Education**

May 2018 **Yale University**  
 Environmental Engineering, BS

- Designed and built a novel portable fluorometric water quality sensor
- Courses included: Water quality control, aquatic chemistry, green engineering & sustainable design

**Professional Experience**

*Summary* 5+ years of experience in environmental business and technology development, including anaerobic digestion and liquid and solid waste management. At least four years of experience in a supervisory capacity.

**Mar 2024 - Present** **Hawaii Ulu Cooperative, Postharvest Facility Manager**  
 Manage operations of the 'Alae Postharvest Facility including day-to-day safety and facility maintenance, agricultural processing, facility expansion & development. Supervise six employees.

Jan 2023 - May 2023 **Kohala High School, English teacher**  
 Improved writing skills through practice, vocabulary building, and specific feedback  
 Designed curricula, worked with students to build strong arguments

Sep 2022 - Present **Sea Education Association, Assistant scientist (intermittent)**  
 Collect, process, and ensure integrity of shipboard marine samples and data  
 Responsible for the safety and education of students from high school through graduate level

**Aug 2021 - Present** **Independent Consultant, Marine algae biology and cultivation**  
 Drive growth and sound business practices at new and established algae companies  
 Develop crops from wild-type marine algae and innovate in cultivation and breeding

**Sep 2018 - Aug 2021** **Symbrosia Inc, Co-founder and chief technology officer**  
 Built startup from concept to first revenues and an eight-figure valuation  
 Assembled a world-class team of researchers to develop a novel biotechnology product  
 Managed lab and farm space including safety, training, and outcomes  
 Won numerous grants including private, public, and federal, and contributed to private fundraising

Feb 2018 - Dec 2018 **Center for Innovative Thinking at Yale, OpenLab manager**  
 Managed team responsible for blockchain enabled smart/resilient microgrids  
 Designed an IoT microgrid simulator to test blockchain enabled smart energy contracts  
 Engineered remote energy monitors and designed custom electronics

Jun 2017 - Aug 2018 **Yale University, Chinese language ambassador**  
 Yale University specialty tour guide in Mandarin Chinese

Feb 2018 - Dec 2018 **Jaehong Kim Lab at Yale, Researcher**  
 Answered questions about microbial fluorescence and wastewater  
 Designed and built a portable rapid water quality monitoring instrument

Sep 2017 - Jan 2018 **Jordan Peccia Lab at Yale, Research assistant**  
 Conducted DNA extraction and qPCR analysis

- Oct 2016 - **Tricycle Anaerobic Solutions, Co-founder**
- May 2018 Tested novel pretreatments to improve the efficiency of non-traditional organic feedstocks  
Completed Tsai CITY business accelerator program
- Mar 2016 - **RIPE Energy, Biogas project development intern**
- Sep 2016 Worked with researchers, customers, legal counsel, and government officials to align incentives  
and develop a biogas project in Kunming, China

**Volunteer Experience**

- May 2015 - **Engineers Without Borders, Yale Chapter, Project lead**
- Dec 2016 Oversaw design and construction of a water collection and distribution system in Rohvitangta,  
Cameroon, resulting in a 70% reduction in the instances of waterborne illness

**Awards and Acknowledgements**

<b>USDA SBIR, Principal Investigator, Kailua Kona, HI, USA</b>	\$100,000
<b>National Science Foundation SBIR, Kailua Kona, HI, USA</b>	\$256,000
<b>MIT Solver Award, Boston, MA, USA</b>	\$24,000
<b>NOAA Marine Education and Training Award, Kailua Kona, HI, USA</b>	\$15,000
<b>MIT Water Innovation Prize, Boston, MA USA</b>	\$14,000
<b>Yale International Relations Assn. Spring Travel Grant, Lanyu Island, Taiwan</b>	\$4,250
<b>Yale Landscape Lab Seedling Award, New Haven, CT, USA</b>	\$2,000
<b>Tsai Center for Innovative Thinking at Yale Accelerator, New Haven, CT, USA</b>	\$1,000
<b>Sunrise Foundation Travel Grant, Kunming China</b>	\$1,960
<b>J. Vance and J. Carter Travel Fellowship, Rohvitangta, Cameroon</b>	\$2,000
<b>Lingnan (University) College Yale Exchange, Guangzhou, China</b>	\$1,500
<b>Richard U. Light Fellowship, Harbin, China</b>	\$10,000

**Publications**

Kwan, S. E., J. Peccia, **J. Simonds**, U. Haverinen-Shaughnessy, and R. J. Shaughnessy. Comparing bacterial, fungal, and human cell concentrations with rapid adenosine triphosphate measurements for indicating microbial surface contamination. *American Journal of Infection Control* 47(6): 671-676.  
doi.org/10.1016/j.ajic.2018.11.011

**Skills**

- Grant writing
- Project management (agile & waterfall)
- Science communication
- Rapid prototyping
- Teamwork
- Leadership
- Laboratory

**Certifications**

- US Sailing Level I
- NASBLA Safe Boating
- PADI Open Water SCUBA
- CPR and First Aid
- TWIC card

**Technical**

- CAD software
- Data analysis (R)
- Arduino, C/C++
- IoT hardware and software
- Electronics and PCB design
- Clean hood, microbial hood, sterile techniques, lab electronics, mass spec, plate culture, seawater growth media, DNA extraction
- Ocean data collection: CTD, Niskin bottles, net tows, sediment grabs