

JONATHAN MELVILLE

Email melville@mit.edu **Phone** (620)-842-8756 **Website** <https://stuff.mit.edu/~melville/>
Skills HTML/CSS, JavaScript/jQuery, Python, MATLAB, Linux, L^AT_EX

EDUCATION

UC Berkeley (Berkeley, CA) **B.S. Chemistry, High Honors** 08/2012 – 05/2016
MIT (Cambridge, MA) **Ph.D. Chemistry** 08/2016 – *present*

ACADEMIC RESEARCH

Research Assistantships

UC Berkeley (Berkeley, CA) *Adviser:* Ronald C. COHEN 06/2013 – 06/2014
Gas-flux analysis and modeling of epiphytic plants as NO_x sinks
UC Berkeley (Berkeley, CA) *Adviser:* Jeffrey R. LONG 06/2014 – 06/2016
Synthesis and characterization of metal-organic frameworks for gas storage and separations
MIT (Cambridge, MA) *Adviser:* Yogesh SURENDRANATH 10/2016 – *present*
Development of electrochemical methane-to-liquid-fuels catalysis and separations systems

WORK & EXTRACURRICULAR EXPERIENCE

Counseling and Mental Health

MIT (Cambridge, MA) **Graduate Resident Tutor** 08/2017 – *present*
Advised and mentored 40 undergraduate students in MIT's East Campus dorm as a live-in paraprofessional.

Teaching and Pedagogy

MIT (Cambridge, MA) **Teaching Assistant** 08/2016 – 06/2017
Led recitation sections for 5.112 (advanced general chemistry) and 5.12 (organic chemistry).

Web Development

Freelance **Web Developer** 09/2013 – *present*
Designed and built websites for a variety of scientific research groups:
– Dincă Group MIT web.mit.edu/dincalab/ (*work in progress*)
– Surendranath Group MIT interphases.org
– Center for Gas Separations Department of Energy cchem.berkeley.edu/co2efrc/
– Long Group UC Berkeley alchemy.cchem.berkeley.edu

Science Journalism

Berkeley Science Journal **Staff Writer** 01/2013 – 06/2014
Wrote features articles for publication in UC Berkeley's undergraduate research journal:
– *The Decline and Death of Nuclear Power* (Spring 2013)
– *Fracking: An Industry Under Pressure* (Fall 2013)
– *Bright Ideas in Solar Energy* (Spring 2014).

VOLUNTEER WORK

Extracurricular

DoE National Science Bowl (Washington, DC) **Alumni Volunteer** 04/2010 – *present*
Assisted in running regional and national middle- and high-school science competitions.
Mission San Jose High School (Fremont, CA) **Chemistry Tutor** 05/2011 – 08/2013
Tutored underperforming students in middle- and high-school chemistry.

AWARDS AND HONORS

- Eagle Scout (San Francisco Bay Area Council)
- Honorable Mention, National Science Foundation Graduate Research Fellowship Program (2016)
- UC Berkeley College of Chemistry Dean's Honor List (Spring 2013, Spring 2016)
- UC Berkeley College of Chemistry Senior Undergraduate Research Award (Spring 2016)