# Emma O'Neill

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## Education

MS, Institute for Computational & Mathematical Engineering, Stanford University
BS, Mathematics, minor in Physics, Haverford College

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## Professional Experience

*January 2016 – Present*
**Interactive Producer, *San Francisco Chronicle*, San Francisco, CA**
- Created interactive web applications that are cross-browser, cross-device compatible
- Worked on breaking news, feature stories, landing pages, visual stories, and ground-breaking investigations
- Collaborated with editors, reporters, graphic designers, photographers, and copy editors
- Conceptualized, researched, managed, and built projects
- Spearheaded the San Francisco Chronicle transition to digital-first content
- Produced some of the most-read, most engaging projects each year
- In October of 2017, developed a breaking news map of wine country fires that was a top resource for Bay Area residents tracking the fires
    - Over 307,000 unique visitors
    - Over 24.7 million map views
    - An average of 5 minutes of reader engagement time
- See more examples of my work at emmaruthoneill.com/portfolio

*June 2015 – August 2015*
**Digital Interactives Intern, *The Seattle Times*, Seattle, WA**
- Analyzed data for investigative journalism reports
- Created interactive mobile responsive web applications
- See examples of my work at emmaruthoneill.com/portfolio

*2008 – January 2016*
**Research Engineer, *Ocean and Space systems group, SRI International*, Menlo Park, CA**
- Participated in and coordinated many field tests, collecting diverse data including radar, lidar, lightning, and drone flight telemetry
- Implemented many image processing, statistical, positioning, and real-time computing algorithms
- Built firmware for astronomical data acquisition systems
- Worked on projects with diverse goals:
    - Tracking moving targets in urban canyons
    - Analyzing UAV energy use
    - Geolocating a sensor using TDoA measurements from lightning strikes
    - Extracting LTE signals (a wireless communication standard)
    - Designing more efficient sensors for space-situational awareness
    - Mapping projected satellite trajectories
    - Recovering telecommunications data transmitted over unreliable channels

## Scientific Publications

- Stolaroff, J.K., C.S Samaras, E.R. O'Neill, A.M. Lubers, A.S. Michell, D.P. Ceperley. "Energy use and life cycle greenhouse gas emissions of drones for commercial package delivery," *Nature Communications*, Accepted.
- Sparr, R.H., E.R. O'Neill, and D.P. Ceperley. "Bayesian Network Processing of Penetrating Radar Scattering for Building Reconstruction," *Military Sensing Symposia Tri-Service Radar Symposium*, Orlando, Florida, 2010.
- Sharpee, B.D., E.R. O'Neill, and T.G. Slanger. "Astronomical Sky Spectra from the 29-31 October 2003 Geomagnetic Superstorms: Observations of $O^+(2D0\text{-}4S0)$ and Other Emissions," *Journal of Geophysical Research: Space Physics*, 2008.

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## Skills

*Languages*: English (Native), French (Proficient)

*Coding*: JavaScript, HTML, CSS, LESS, jQuery, d3, AngularJS, Git, Excel, Leaflet, Mapbox, Matlab, Subversion, LaTeX, R, Python, Mathematica, SQL, Verilog, C++

*Running*: Oakland half marathon 2015, Oakland half marathon 2014, Grape Stomp half marathon 2012, Boston marathon 2011, Kaiser half marathon 2011, Avenue of the Giants marathon 2009