Emma O'Neill

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Education

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

Professional Experience

January 2016 – Present
Interactive Developer, *San Francisco Chronicle*, San Francisco, CA

- Create interactive web applications that are cross-browser, cross-device compatible
- Work on breaking news, feature stories, landing pages, visual stories, and groundbreaking investigations
- Collaborate with editors, reporters, graphic designers, photographers, and copy editors
- Conceptualize, research, manage, and build projects
- Spearhead the *San Francisco Chronicle* transition to digital-first content
- Produce some of the most-read, most engaging projects each year
    - Developed a map of the Wine Country fires in October of 2017 that was a top resource for Bay Area residents tracking the fires and won a Scripps Howard Award for Breaking News
    - Designed and built elections guides and results pages for the 2016 and 2018 elections

June 2015 – August 2015
Digital Interactives Intern, *The Seattle Times*, Seattle, WA

- Analyzed data for investigative journalism reports
- Created interactive mobile responsive web applications

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 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

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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*, Feb. 2018.
- 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^+(2D0-4S0) and Other Emissions," *Journal of Geophysical Research: Space Physics*, 2008.

Skills

Languages: English (Native), French (Proficient)

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

Essential skills: project management, collaboration, prioritization of goals, meeting deadlines, quantitative data analysis, clear and engaging communication of complex subjects

Running: Berkeley half marathon 2017, 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