Allie Hutchison, PhD

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Work Experience

Freelance Writer
Al Jazeera, MIT Technology Review, Thrillist, Business Insider, Inverse, etc.
03.2022-present

Achievements:

- Published personal essays, narrative features, and scientific journalism
- See stories here: https://alliehutchison.com/journalism/

Postdoctoral Researcher
Sapienza University, Rome
10.2020-02.2022
Achievements:

- Researched various responsible approaches to earthquake prediction
- Developed project and subsequently advised masters student on machine learning project related to identification of specific seismic signals
- Frequently collaborated with research group to work on review papers and group projects
- Organized and co-chaired two sessions at international conferences on the physics of earthquake behavior on faults

Postdoctoral Researcher
Geoazur (CNRS), ETH Zurich/Swiss Seismological Service/IFSTTAR
10.2018 – 10.2020
Achievements:

- Researched earthquake early warning systems and material properties of faults related to their structural maturity
- Created and developed a new earthquake early warning algorithm based on findings
- Collaborated with fellow researchers to optimize results
- Published three peer-reviewed papers from resulting research
- Organized and chaired two sessions at international conferences on the physics of earthquake behavior on faults
- Orally presented research findings at two international conferences

Research Fellow/Instructor/Teaching Assistant
University of California, Riverside – Department of Earth Sciences

09.2013-09.2018
Achievements:

- Researched new varieties of earthquakes and their implications in terms of earthquake hazard
- Developed algorithms to use large seismic datasets to better understand unique modes of deforming Earth's crust
- Wrote grant proposals for a course of research and won associated funding
- Gave oral and poster presentations about research findings at national and international meetings
- Wrote and published three papers in peer-reviewed scientific journals about research findings
- Created course content and was primary university level instructor for an Introduction to Geographic Inforrmation Systems
- Teaching assistant for three university level courses in earth sciences

Director of Digital Marketing
EZ Island Pages, Big Island, Kailua-Kona, Hawaii
01.2012-09.2012
Achievements:

- Developed and created digital marketing best practices for company
- Taught employees to use Google AdWords and manage SEM accounts
- Oversaw relationships with clients

Search Engine Marketing Account Manager
Meltwater Reach, San Francisco, CA
01.2011-11.2011
Achievements:

- Successfully optimized and managed up to 15 SEM accounts simultaneously to enhance return according to best practices
- Responsible for client interfacing and reporting on account performance
- Brainstormed ad copy

Education

Masters of American Journalism
New York University
09.2021 – 05.2024
Yoga Teacher Training (200 hour)
Yoga Renew
08.2023-09.2023
PhD, Earth Sciences: Seismology & Geophysics
University of California, Riverside
09.2013 – 09.2018
Masters of Research, Natural Hazards
University of Bristol
09.2012 – 09.2013
Bachelor of Arts, Geosciences
Hamilton College
01.2006 – 05.2010

Technical Skills

Tools
Microsoft Office, ArcGIS, Adobe Illustrator, Adobe Photoshop, Google AdWords, Descript, Hindenburg

Programming Languages
Matlab (expert), Python (proficient), Shell(moderate), perl (moderate), C (beginner)
Spoken Languages
English (native), Spanish (fluent), French (fluent), Italian (beginner/moderate), Portuguese (beginner/moderate)
Research and Planning
Identifying outstanding questions, gathering relevant sources that consider multiple angles, noting key points in references, synthesizing findings, using findings to outline new questions or potential courses of action

Practical Skills

critical thinking | creativity | empathy | communication (oral, written, spoken) & public speaking | brainstorming | self-management | strategising | teamwork | problem-solving | pragmatism | pattern and trend recognition | management | teaching

Awards & Fellowships

Roland Blanchard Fellowship
Department of Earth Sciences, University of California, Riverside
2018
Dissertation Year Fellowship Award
University of California, Riverside
2017
Student Presentation Award
Seismological Society of America Annual Meeting, Pasadena, CA
2015
Dean's Distinguished Fellowship
University of California, Riverside
2013-2014
Summer Science Research Grant
Hamilton College
2009

Articles (selected)

- **Learning to Live After my Husband's Suicide** (Al Jazeera)
  How Machine Learning Might Unlock Earthquake Prediction (MIT Technology Review)
- **Cultural differences between the US and Europe: Americans bond over similarities while Europeans connect on differences** (Business Insider)
- **2001: A Space Odyssey is Still the Most Scientifically Accurate Space Film Ever** (Inverse)
- **The Summer Festival in Porto Where People Just Whack Each Other with Hammers** (Thrillist)
- **50 Years Ago, NASA Sent a Message to Aliens — and Sparked a Solar System Mystery** (Inverse)
- **65 years ago, astronomy's most colorful character made a bold interplanetary claim** (Inverse)

Scientific Publications

Böse, M., **Hutchison, A. A.,** Manighetti, I., Li, J., Massin, F., & Clinton, J. F. (2021). FinDerS (+)-Real-time Slip Profiles and Magnitudes Estimated from Backprojected Seismic and Geodetic Displacement Amplitudes. *Frontiers in Earth Science*, *9*, 601.

Hutchison A.A., Böse M., Manighetti I. (2020) Improving early estimates of large earthquake's final fault lengths and magnitudes leveraging source fault structural maturity information. Geophysical Research Letters, (in press)

Hutchison, A. A. (2020). Inter-episodic tremor and slip event episodes of quasi-spatiotemporally discrete tremor and very low frequency earthquakes in Cascadia suggestive of a connective underlying, heterogeneous process. *Geophysical Research Letters*, *47*(3), e2019GL086798.

Li J. M. D., Böse M., Wyss M., Wald D., **Hutchison A.A.,** Clinton J. F., Wu Z., Jiang C., Zhou S., (2019) Estimating Rupture Dimensions of Three Major Earthquakes in Sichuan, China, for Early Warning and Rapid Loss Estimates. Bulletin of the Seismological Society of America, 110(2), 920-936.

Hutchison, A. A., & Ghosh, A. (2019). Repeating VLFEs During ETS Events in Cascadia Track Slow Slip and Continue Throughout InterETS Period. Journal of Geophysical Research: Solid Earth, 124(1), 554-565.

Hutchison, A. A., & Ghosh, A. (2017). Ambient Tectonic Tremor in the San Jacinto Fault, near the Anza Gap, Detected by Multiple Mini Seismic Arrays. Bulletin of the Seismological Society of America, 107(5), 1985-1993.

Hutchison, A. A., & Ghosh, A. (2016). Very low frequency earthquakes spatiotemporally asynchronous with strong tremor during the 2014 episodic tremor and slip event in Cascadia. Geophysical Research Letters, 43(13), 6876-6882.

Hutchison, A. A., Cashman, K. V., Williams, C. A., & Rust, A. C. (2016). The 1717 eruption of Volcán de Fuego, Guatemala: Cascading hazards and societal response. Quaternary International, 394, 69-78.