

# Allie Hutchison, PhD

(Alexandra Gagel-Hutchison)

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## Work Experience

### Freelance Writer

Inverse

03.2022-present

#### Achievements:

- Writing stories about space and space history
- [Stories here](#)

### Postdoctoral Researcher

Sapienza University

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 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 Information 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 – present

### 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

### Programming Languages

Matlab (expert), Python (proficient), Shell(moderate), perl (moderate), C (beginner)

### Spoken Languages

English (native), Spanish (fluent), French (moderate), Italian (beginner)

### 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

strategizing | critical thinking | communication | brainstorming | self-management | teamwork | creativity | problem-solving | pragmatism | empathy | public speaking | SEM | pattern and trend identification

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## 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

[50 YEARS AGO, A SOVIET SPACECRAFT SPENT A CRITICAL 50 MINUTES AND 11 SECONDS ON VENUS](#) (Inverse)

[30 YEARS AGO, AN INTERNATIONAL SPACE MISSION RADICALLY CHANGED HOW WE SEE EARTH](#) (Inverse)

[50 YEARS AGO, NASA SENT A MESSAGE TO ALIENS — AND SPARKED A SOLAR SYSTEM MYSTERY](#) (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 VLFs 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.