# Jeremy E. Kozdon, PhD

jkozdon.github.io

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## EDUCATION

**Stanford University** — Stanford, CA
*Ph.D. in Computational and Mathematical Engineering* — *2009*
*M.S. in Computational and Mathematical Engineering* — *2006*

**University of California Santa Cruz** — Santa Cruz, CA
*B.A. in Physics with minor in Computer Science* — *2004*

## EXPERIENCE

**NextSilicon** — (fully remote) Monterey, CA
*Staff HPC Applications Engineer* — *2023 – Present*
*HPC Applications Engineer* — *2022 – 2023*

- Development, tuning, and profiling of HPC libraries, benchmarks, and applications
- Mentoring of junior team members
- Providing support for customers, documentation, and software release cycle
- Development of best practices for code development and optimization guidelines

**Naval Postgraduate School** — Monterey, CA
*Associate Professor of Applied Mathematics* — *2019 – 2022*
*Assistant Professor of Applied Mathematics* — *2012 – 2019*

- **High Performance Computing:** Developed multi-GPU scientific software for seismic and climate modeling
- **Computational Methods:** Created robust, accurate, and adaptive methods for modeling of wave phenomena (earthquakes and atmosphere)
- **Teaching:** Taught a variety of mathematics courses from calculus and differential equations to numerical linear algebra and high performance computing
- **Mentoring:** Mentored undergraduate, graduate, and postdoctoral students on projects related to scientific computing
- **Research Funding:** PI or co-PI on funding from the National Science Foundation, Department of Navy, and cooperative agreements for other universities

**Department of Geophysics** — Stanford, CA
*NSF Fellow for Transformative Computational Science using CyberInfrastructure* — *2011 – 2012*
*Postdoctoral Research Scholar* — *2009 – 2011*

- Developed finite difference methods for earthquake rupture simulations in complex geometries
- Co-developed a MPI-based software for earthquake science that was used to simulate the 2011 Tohoku earthquake and tsunami

## SKILLS

- Skills: numerical methods development, finite {element, difference, volume} methods, scientific software design, parallel computing, numerical linear algebra
- Programming and technologies: C, C++, Fortran, Julia, MATLAB, CUDA, MPI, OpenMP, Git, LaTeX, continuous integration testing

## PUBLICATIONS

Over 20 peer-reviewed publications in journals such as SIAM Journal on Scientific Computing, Journal of Computational Physics, Journal of Scientific Computing, and Computational Geosciences.