Jeremy Luke Thompson

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https://github.com/jeremylt

EDUCATION

M.Sc. in Applied Mathematics, University of Washington, December 2011
B.S. in Mathematics, Philosophy minor, United States Air Force Academy, May 2009

EXPERIENCE

University Of Colorado Boulder   Boulder, CO
Graduate Research Assistant   Summer 2017 - Current
DoE Exascale Developer
- Built libCEED library in C with CPU/GPU performance portability, Fortran77 interface
- Developed PDE component for DoE exascale software ecosystem and architectures
- Subject matter expert on open source project with geographically distributed team
- Overhauled API to support optimization, maintainability, and extensibility
- Increased code coverage in Travis CI to 91% - https://github.com/CEED/libCEED

Graduate Instructor, Applied Math   Spring 2017 - Fall 2018
- Courses Taught: Calc I, Calc III, and Differential Equations

United States Air Force Academy   Colorado Springs, CO
Assistant Professor, Math Department   Summer 2012 - Spring 2016
Instructor, Math Department
- Courses Taught: Calc I, Calc II, Calc III, Differential Equations, Engineering Mathematics, and Discrete Mathematics
- Awarded Outstanding Academy Educator, Outstanding Course Director, Outstanding New Instructor

Mathematics Researcher   Fall 2012 – Summer 2016
- Collaborated with multi-university team on research in foundational mathematics
- Published - Jeremy L. Thompson, Kurt Herzinger, Trae Holcomb *The Frobenius Number of Balanced Numerical Semigroups*, Semigroup Forum (2017) 94:632-649.

Lawrence Livermore National Lab   Livermore, CA
Visiting Scientist   Summer 2014
- Improved wind data projections for optimizing power grid production balancing
- Implemented smoothing filters, FFT, Gaussian smoothing, and non-local means
- Created Python CL tool to compare methods and analyze parameter stability
- Published - Jeremy L. Thompson *An Empirical Evaluation of Denoising Techniques for Streaming Data*, LLNL-TR-659435

United States Air Force   Barksdale AFB, LA
Advanced Weapon Systems Analyst   Summer 2009 - Summer 2012
- Executed testing and analyzed B-52 nuclear Air Launched Cruise Missile
- Developed new time series based reliability projection; automated analysis in R
- Restored USSTRATCOM acceptance of USAF accuracy and reliability forecasts
- Awarded Air Combat Command Junior Military Scientist of the Year

United States Air Force   Peterson AFB, CO
Summer Internship   Summer 2008
- Verified Boeing reliability analysis of Wideband Global SATCOM hardware
- Drafted acceptance test report with AFOTC team for Air Force Space Command

Certifications

Operations Research Analyst, 61A3, United States Air Force