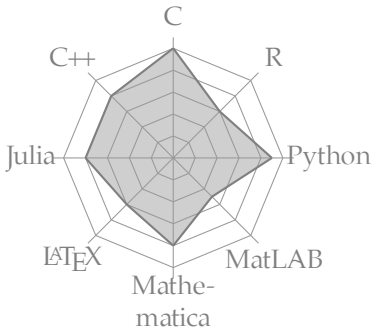
HunterMills

Graduate student at the Institute of Computational and Mathematical Engineering at Stanford University interested in scientific computing, modeling, and visualization

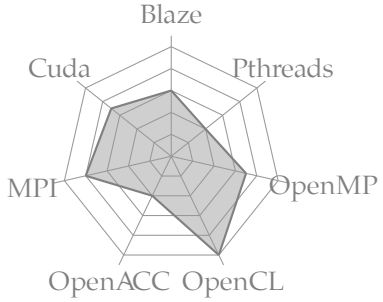
huntermills707@gmail.com | 1-707-799-1896 | hunter-mills-874753a6 | Sebastopol CA

Skills

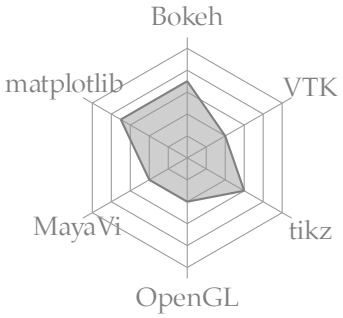
Programming



Parallelization



Visualization



Languages

Professional Development

- edx/ColumbiaX — 2017
  - Artificial Intelligence
  - Machine Learning

Education

- MS Computational amd Mathematical Engineering — 2015 - 2018
  Stanford University — Stanford CA
  GPA: 3.34, Departmental Fellowship
  - Numerical Linear Algebra
  - Data Mining
  - Algorithms
  - Convex Optimization
  - Scientific Computing
  - Stochastic Processes
- BS Physics/ BA Mathematics — 2012 - 2014
  Sonoma State University — Rohnert Park CA
  GPA: 3.89, Distinction in Physics
  - Quantum Mechanics
  - Statistical Mechanics
  - Semiconductor Theory
  - Electricity and Magnetism
  - Numerical Analysis
  - Linear Systems Theory
- AS Mathematics — 2007 - 2011
  Santa Rosa Junior College — Santa Rosa CA
  Doyle Scholoarship

Experience

- Embedded Systems Engineer — 2014 - Present
  Sonoma State University Education and Public Outreach — Rohnert Park CA
  - Designed microcontroller networks for environmental sensing in Logo.
  - Debugged radio based microntroller communications.
  - Created SPI, I2C, UART, and PWM comunication libraries in Logo.
  - Built transmission based spectrometer.
  - Implemented Si1145 IR/Visible/UV sensor for NDVI measurements.
  - Integrated SD card based memory system for small satellites.

Research

- 3D Image Reconstruction using Coded Apertures — 2014
  Sonoma State University — Rohnert Park CA
  - Created image reconstruction method Monte Carlo back-projections
  - Built cadmium zinc telluride x-ray detector system
  - *Won Best Research at Sonoma State's Science Symposium*
- T-LogoQube: 3P Satellite — 2013
  Sonoma State University — Rohnert Park CA
  - Built/designed 15cm x 5cm x 5cm satellite
  - On-board magnetometer and torquing coils
  - Launched November 21, 2013 into a polar, sun synchronous 634km orbit
- Digital Control for PHI Auger Specrtrometer — 2012 - 2013
  Sonoma State University — Rohnert Park CA
  - Bypassed analog controls with Arduino based digital control system
  - Allowed remote control and more precise control.
  - *Fully funded through Newkirk Student Assistantship*

Volunteering

- Volunteer Firefighter — 2017-Present
  Sebastopol Fire Department — Sebastopol CA
  - First Responder and Basic Life Support
  - Fire Suppression/Rescue