

Steven Dorsher, he/him

Former Computational Astro/Particle Physicist

Certificates in Machine Learning

Currently a Physics and Calculus Part Time Remote Tutor
<https://www.sdorsher.com>, <https://sdorsher.github.io>¹

Name on all ID: Susan Dorsher, Female; USA Citizen
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Need Disability Accommodations; Looking For Remote Work
Not Seeking Teaching Work For Physical Disability Reasons

Education

- B.S. Physics; MIT; 2004
- M.S. Astronomy; Ohio State; 2006
- M.S. Physics; UMN; 2013
- M.S. Physics; LSU; 2017

Overview

- Physics and Astronomy
- Scientific Programming (15-20 yrs)
- Technical Writing
- Scientific Visualizations
- Education

Methodology

- Math; Statistics (since 1995...)
- Numerical and Computational Methods
- data-analysis-informed-theory
- theory-informed-data-analysis
- Data Analysis Algorithms
- Experiment Modelling and Evaluation through Simulation

Programming Skills

- Python; C++; Fortran
- Some: Pandas; Seaborn; Sklearn; Tensorflow
- Years ago: Matlab; C; some Java
- Tiniest bit of: OpenMP, MPI, mpi4py, HBase, SQL
- Non expert: Jupyter; g++; gdb, valgrind, makefiles
- Non expert: linux, windows, mac

Physics

- General Relativity
- Gravitational Waves
- Gravity Gradient Noise
- Three Body Orbits
- Astrophysics
- Cosmology
- Particle Physics
- Neutrinos
- Exoplanets
- Fractional Calculus

Numerical Methods

- Spectrograms
- Discrete Fourier Transforms
- Radon Transform

¹This resume was created past 2 am. It's incomplete. Please see my websites and the links there for more info! Thanks!

- Algorithm Evaluation for Statistically Blinded Searches
- Monte Carlo Simulation
- Numerical Integration
- Fractional Numerical Integration
- Numerical Solutions to PDEs
- Discontinuous Galerkin Method
- Multipole Moment Decomposition
- Scalar, Vector, and Tensor Fields
- Ray Tracing
- Schwarzschild Metric
- Removal of Singularities
- Impacts of Symmetry
- Form Factors