STEFAN CLINE
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GitHub: https://github.com/StefanCline/Coding_Examples

Employment History

- **Solar Physics Intern**, Predictive Science Inc. **Dec. 2022 – Present**
  - TBD (early work has involved scripting in Python and Fortran)
- **Wafer Alignment Intern**, ASML Wilton, CT **Jun-Aug 2022**
  - Investigated a novel technique for Wafer Alignment in DUV Photolithography Systems. Presented findings to cross-functional stakeholders to determine future feasibility.
- **Calculus II Teaching Assistant**, San Diego State University (SDSU) **Aug. 2021 – May 2022**
  - Taught breakout sessions twice a week for two sections (~60 students). Graded and proctored exams.
- **Sequence Design Engineer**, ASML San Diego, CA **Mar. 2018 – Mar. 2020**
  - Developed sequences during the company's transition phase from R&D to Industrialization of EUV Photolithography systems.
- **Miliary Officer (Captain, Active Duty)**, United States Army **May 2013 – Feb. 2018**
  - Performed in leadership roles from combat and policing at the unit (~43 personnel) level to organizing and executing logistics and budget management (~250 & 1200 personnel).

Education

- **M.S. Applied Mathematics (San Diego State University)** **Fall 2021 – Spring 2023**
  (Dynamical Systems and Chaos concentration)
  - *Advanced Ordinary Differential Equations (ODEs)*
  - *Discrete and Continuous Chaos*
  - *Partial Differential Equations (PDEs)*
  - *Computational PDEs*
  - *Optics*
  - *Mathematical Models*
  - *Fourier Analysis*
  - *Nonlinear Waves*
- **B.S. Mathematics (Indiana University)** **Fall 2019 – Summer 2021**
  - *Calculus I, II, III*
  - *Linear Algebra*
- **B.A. German Studies (University of Nevada, Las Vegas)** **Fall 2008 – Spring 2013**

Noteworthy Projects

- Thesis (working title)
  - *Machine Learning Applied to Optimization of Mode Detection for Empirical Wavelet Transforms*
- Finite Element Methods (FEM) applied to the Nonlinear Schrodinger Equation (NLS) on a toroidal surface
  - Solved introductory problems analytically for setup, numerical NLS implemented on `FreeFem++`
- Multi-Layer Heat Diffusion through Several Media
  - Completed exact solution and Finite Difference Scheme (FDS) numerical approximation
- ASML: Configuration Package 1 and 2
  - Planned, wrote, and oversaw massive system level sequences with an interdisciplinary team.

Skills and Certifications

- ❖ MATLAB
- ❖ LaTeX
- ❖ Python
- ❖ VBA
- ❖ Maple
- ❖ Fortran
- ❖ German Language
- ❖ Secret Clearance (exp. Jan 2022)