Peter Solfest

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https://github.com/solter

Summary

Developer of scientific software with a strong background in applied and computational mathematics, and a solid understanding of physics. Experienced at developing software and algorithms to model space and terrestrial weather and its impacts on electromagnetic wave propagation.

Professional Experience

- **Mathematician** — Northrop Grumman
  SWAFS, Weather and Space Impacts Research and Development Center — *Feb 2017 – present*
  - Primary Responsibilities: modernize software infrastructure, develop/improve software processes, develop innovative new applications to demonstrate space weather impacts, mathematical validation of algorithms
- **Engineering Scientist Associate** — Applied Research Laboratories, UT
  Space and Geophysics Laboratory — *Oct 2015 – Jan 2017*
  - Major Projects: data assimilating ionospheric models, web services for supplying models
- **Research Assistant** — University of Minnesota
  Dept. of Computer Science — *July 2014 – Mar 2015*
  - Advisor: Dr. Yousef Saad
  - Responsibilities: software development, prepare progress reports
- **Calculus Instructor** — Michigan Tech Dept. of Mathematics
  Calculus 1 and 2 — *Jan 2013 – June 2014 (4 semesters)*
  - Responsibilities: Lecture, Grade, lead study sessions, write exams
  - Calc 1 (Spring 2013 - Spring 2014), Calc 2 (Summer 2014)

Professional Certifications

- **Security+** — CompTIA
  Application, network, and device security — *Feb 2018 – Feb 2021*

Education

- **Michigan Technological University** — Houghton, MI
  M.S. in Applied Mathematics; GPA: 4.00 — *Aug 2012 – June 2014*
  - Advisor: Dr. Jiguang Sun
- **Michigan Technological University** — Houghton, MI
  B.S. in Physics and Applied/Computational Mathematics; GPA:3.94 — *Aug 2008 – Apr 2012*
  - Graduated Summa Cum Laude

Software Skills

- **Software Practices:** (automated) unit testing, cross-language development, DevOps
- **Software Tools:** git, Linux, JIRA, LaTeX, Mathematica, MATLAB, SharePoint
- **Programming Languages:** Python, Java, Fortran (Modern and 77), BASH, C, C++, SQL

Achievements

- **Outstanding Teaching Award** — Michigan Tech Dept. of Mathematics
  Graduate Level — *2014*
- **Co-Recipient of Ian W. Shepherd award** — Michigan Tech Dept. of Physics
  "presented each year to the most outstanding physics graduate(s)" — *2012*
- **Departmental Scholar** — Michigan Tech Dept. of Physics
  2011