

Peter Solfest

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Clearance Level: Secret

Summary

I develop and engineers software solutions using state-of-the-art techniques and technologies. I am especially interested in positions that leverage my applied/computational mathematics and physics background to solve novel problems for customers in the space domain.

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
 - Roles: SWAFS Tech Lead, SWAFS Software Developer, Research Assistant
- **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
- **Calculus Instructor** Michigan Tech Dept. of Mathematics
Calculus 1 and 2 Jan 2013 – June 2014 (4 semesters)

Professional Certifications

- **CSSLP (pending exam)** (ISC)²
secure software throughout development lifecycle Exam Date: 27 July 2020
- **Model-Based Systems Engineering** Caltech
SysML training and model creation 2019
- **System Engineering Fundamentals** Caltech
Practical methods and tools for system engineering 2019
- **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

Skills

- **Software Practices:** (automated) unit testing, cross-language development, DevSecOps, Documenting design and courses of action, Software Design via Modeling
- **Tools:** Bitbucket, Cameo, Eclipse: Papyrus, Fortify, GitHub, git, JIRA, L^AT_EX, Linux, MATLAB, mercurial, SharePoint, Sparx Enterprise Architect
- **Programming Languages:** BASH, C, C++, Fortran (Modern and 77), Java, Python, SysML, SQL

Achievements

- **NG IP trade secret awards** MS IP Committee
3 related to space and weather effects on communications 2018-2019
- **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

Research Experience

- **Senior Research (BS degree)** Houghton, MI
Computational analysis of spectra arising from Mo doped Tungstenite 2011 - 2012
– Advisor: Dr. John Jaszczak
- **Lunar and Planetary Space Academy** NASA - Goddard, MD
Instrumentation development for space based Gamma Ray Spectroscopy Summer 2011
– Mentor: Dr. Ann Parsons
- **Yap Research Group** Michigan Tech
Boron Nitride Nanotube (BNNT) synthesis and application Summer 2010