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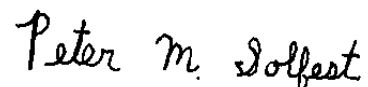email: pmsolfest@gmail.com

Mon 3rd Aug, 2015

To whom it may concern,

I have recently graduated with a master's degree from Michigan Tech in applied mathematics after completing a B.S. in physics and mathematics. I would be a great fit at Boeing given my educational background and strong personal interest in space science and software development.

I will contribute to Boeing utilizing my entire educational background. My B.S. and M.S. in applied mathematics has provided me with extensive experience developing and implementing numerical algorithms in Matlab and C. Furthermore my B.S. in physics has provided me a broad background in the physics underlying many of the useful applications for the mathematical models. My education and personal experience has further provided me with extensive experience working in a Linux environment and scripting jobs using BASH. Furthermore I find tackling new problems invigorating, and have participated in programming AIs in the annual BonzAI Brawl using JAVA and have created particle simulations in my free time using Python among other projects. Beyond my technical qualifications, I have had a life long fascination with pushing the boundaries of humanity's capabilities - especially in space, which previously led to an internship at NASA.

My educational background in mathematics will allow me to approach this position with the technical skills required while my undergraduate in physics and personal fascination with space will provide a strong foundation for the scientific principles necessary to understand the data. Furthermore, having taught throughout my education along with compiling reports throughout my education will allow me to effectively communicate and collaborate with a wide variety of professionals. Thank you for your time and consideration, and hope to hear from you soon.

Sincerely,

Peter M. Solfest

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Summary

Developer of scientific software with a strong background in applied and computational mathematics, and a solid understanding of physics. Experience developing software and algorithms to model space weather and its affects on terrestrial communication. Searching for a position which leverages my mathematical and scientific background to develop cutting-edge scientific software.

Work Experience

- **Software Engineer/Mathematician** — Northrop Grumman
  SWAFS — *Feb. 2017 – present*
  - Primary Responsibilities: modernize software infrastructure, improve software practices, space weather algorithm analysis

- **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)

- **Lab TA** — Michigan Tech
  Introductory Mechanics, Electronics, Mathematica — *Aug 2009 – Apr. 2012*
  - Responsibilities: grade labs; lead lab sections; assist students with Mathematica
  - Mathlab (Aug 2009 - Apr 2011), Mechanics (Aug 2010 - Dec 2011), Electronics (Jan 2012 - May 2012)

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

- **Software Tools:** git, mercurial, Linux, Maven, JIRA, vim, LaTeX, Mathematica, MATLAB

- **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