**Selma Leathem**

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**Objective:** Versatile and creative individual seeking junior level software development/programming position where I can utilize my experience, education and ability to problem solve.

**Technical Skills**

**Languages:** C/C++, Python, FORTRAN, HTML, IDL

**Operating Systems:** Windows, Linux/Unix, Mac OS

**Applications:** Visual Studio , Visual Studio debugger, GNU , GNU debugger, gprof, IDL, Origin, gnuplot, Mathematica, SVN, MS office

**Miscellaneous:** Physics Computer Simulations, Data Visualization, Numerical Methods

**Professional Highlights**

**Voluntary Scientific Software Developer, Self Current**

Designed and developed a physics computer simulation in C++ that offers the user modeling flexibitlity.

**Voluntary Software Developer/Tester, GNU PSPP, 2012**

Wrote code in C that allowed for evaluation of PSPP statistical software against benchmark standards, which led to quality improvements.

**Physics Software Research Associate, Tech-X Corp.** **2005-2008**

* Developed code in Python to extract and process physical data for use in scientific applications.
* Streamlined review of computer simulation results by applying numerical methods and data-visualization techniques using Python and IDL.
* Collaborated in multi-disciplinary teams to test software that resulted in significant bug fixes and better products.
* Performed cutting edge research on plasma devices using computer simulations.
* Co-authored scientific research articles in peer reviewed journals and presented scientific conclusions at conferences.
* Worked closely with clients to develop physical simulation models that met their specification and satisfaction.

**Work Experience**

**Voluntary Scientific Software Developer,** Self, 2015

**Voluntary Software Developer/Tester and Technical Writer**, GNU PSPP, 2011-2012

**Physics Education Contract Writer**, Quarasan, 2011

**Apple Technical Support**, Adecco, 2011

**Freelance Writer**, Demand Studio, 2009-2010

**Physics Software Research Associate**, Tech-X Corp. 2005-2008

**Education**

**Computer Physics Simulation Course**, University of California at Berkeley, 2007, 3.7 GPA

**Doctor of Philosophy in Plasma Physics,** Imperial College of Science, Technology, & Medicine, London, England, 2005, Developed a computer simulation to model fusion plasmas.

**Bachelor of Science in Physics with Astrophysics**, University of Kent, Canterbury, England, 1998

1st Class Honors (3.87 GPA equivalency determined by the International Educational Research Foundation Inc)

**Professional Development**

**Programming Methodology**, Stanford Engineering Everywhere, current

**Programming Abstractions**, Stanford Engineering Everywhere, current

**Programming Paradigms**, Stanford Engineering Everywhere, current

**Awards**

Rotary Pize in recognition of distinguished performance in undergraduate examinations.

EPSRC award for graduate doctorate.

**Scientific Publications and Conferences**

S.O. Leathem, P. Stolz, P. Messmer, D.L. Bruhwiler, and J.-L. Cambier, “Influence of the Mean Injection Speeds on the Discharge Characteristics and Minimization of the Delay Time in a Pseudospark Discharge”, The Open Plasma Physics Journal, 3 (2010) 20-27

S.O. Leathem and P. Stolz, “Dependence of the Delay Time On the Mean Seed Kinetic Energy in a Pseudospark Discharge”, IEEE Power Modulator Conference, Las Vegas, Nevada (May 27th -31st, 2008)

Cetiner in:

S.O. Cetiner, P. Stolz, P. Messmer, D.L. Bruhwiler, and J.-L. Cambier, “Dependence of the Electron Peak Current on the Hollow Cathode Dimensions and Seed Electron Energy in a Pseudospark Discharge”, J. Appl. Phys., 103 (2008) 023304

S.O. Cetiner, S. Veitzer, and P. Stolz, “Computer Study of the Radio Frequency Capacitive Discharge”, 60th APS Gaseous Electronics Conference, Crystal City, Arlington, V.A. (Oct 2nd -5th, 2007)

Selma O. Cetiner, Seth Veitzer, and Peter Stolz, “Variation of the Discharge Characteristics with the Ion Mass in a Capacitive Couple RF Plasma”, IEEE Pulsed Power and Plasma Science Conference, Albuquerque, NM (June 17th -22nd, 2007)

Selma Cetiner, Peter Stolz, and Peter Messmer, “Dependence of the Current on the Hollow Cathode Dimensions and Seed Electron Properties in a Pseudospark Discharge”, 59th APS Gaseous Electronics Conference, Columbus, OH (Oct 10th – 13th, 2006)

Selma Cetiner, Peter Stolz, Peter Messmer, and Paul Schoessow, “Dependence of the Peak Current on the Hollow Cathode Dimensions and Secondary Electron Production in a Pseudospark Discharge”, IEEE International Conference on Plasma Science, Traverse City, Michigan (June 4th -8th, 2006)

Selma Cetiner, Peter Stolz, and Peter Messmer, “Kinetic Models of Gas Discharges using OOPIC Pro and VORPAL”, 3rd International Workshop on Microplasmas, Greifswald, Germany (May 9th – 11th, 2006)

Selma Cetiner and M.G. Haines, “Kinetic Particle-in-Cell Simulations of the Presheath with a Magnetic Field and Collisions”, American Physical Society 47th Annual Meeting of the Division of Plasma Physics, Denver, Colorado (Oct 24th-28th, 2005)