JOHN E. BRIDSTRUP

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2013 McClellan Street
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Objective
A programming position which allows me to make use of my problem solving ability and/or knowledge of physics. Heterogeneous programming and machine learning are of particular interest. Other areas of interest include robotics programming and engineering, physics engine design, network dynamics and more.

Education
James Madison University, Harrisonburg, VA. B.S. Physics. Graduated: May, 2012
Drexel University, Philadelphia, PA. M.S. Physics. Awarded: May, 2014
Drexel University, Philadelphia, PA. Ph.D. Biophysics. Expected: May, 2017

Related Work Experience
Research Assistant 8/2012-Present
Drexel University - Department of Physics, Philadelphia, PA
Doctoral research in cellular biophysics, particularly the effect of macromolecular crowders on the chemical and physical kinetics of proteins. Also beginning to study actin filament networks and their role in cancerous cells. Both projects are heavily computational.

Research Assistant 2009-2012
James Madison University - Departments of Physics and Mathematics, Harrisonburg, VA
Physics: Studied the mechanical properties of carbon nanotubes using atomic force microscopy, scanning electron microscopy and transmission electron microscopy (2009-2012). Presented research poster at the 2012 APS March Meeting in Boston, MA.
Mathematics: Tested solution algorithms for non-linear systems (2011-2012). Presented research at the 2012 AIMS Conference on Dynamical Systems in Orlando, FL.

Other Relevant Experience
Heterogeneous Programming - Coursera Class: Completed with certificate
Practical Machine Learning - Coursera Class: Completed
Non-Linear Dynamics - Graduate Course: A
Mathematical Physics I & II - Graduate Courses: A- & A
- Focused on computational modelling of physical problems.
Robotics - Hobby
- Using Arduino and Johnny-Five (node.js library) to build robots which are controlled via a Raspberry Pi hosting a node.js server. Commands sent via websockets from a browser
Analog Electronics - Undergraduate Class: A

Programming Languages
MATLAB - Proficient
C++ - Proficient
CUDA - Intermediate
C - Intermediate
Python - Intermediate
Javascript - Beginner
Node.js (Javascript framework) - Beginner
Java - Cursory
HTML - Cursory

Other Activities
Active musician - Drummer, guitarist, singer, songwriter and audio engineer
Quidditch team captain and coach - Not a joke. I develop our teams strategies and evaluate players. Philadelphia Honey Badgers.