

# Artem Igorevich Yankov

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<b>OBJECTIVE</b>	A position that utilizes computational science and mathematical modeling to solve challenging, real-world problems in a stimulating and fast-paced environment.	
<b>EDUCATION</b>	<b>University of Michigan</b> <i>Ph.D</i> Nuclear Engineering and Radiological Sciences	Ann Arbor, MI Expected 2014
	<b>Rose-Hulman Institute of Technology</b> <i>B.S.</i> Mathematics <i>B.S.</i> Physics Minor: Computational Science Clarence P. Sousley Award for demonstration of exceptional performance in the mathematical sciences.	Terre Haute, IN May, 2010
<b>SKILLS</b>	<i>Programming Languages:</i> Python, R, Fortran, SQLite, bash scripting, L <sup>A</sup> T <sub>E</sub> X, Matlab, Apache Pig <i>Libraries:</i> Numpy, SciPy, matplotlib, scikit-learn, BeautifulSoup, pandas, ggplot2 <i>Software:</i> Maple, Minitab, Dakota, Tableau <i>Operating Systems:</i> Unix, Windows, OS X <i>Machine Learning:</i> MapReduce, Neural Networks, Logistic/Linear Regression, SVM	
<b>EXPERIENCE</b>	<i>Research Assistant</i> University of Michigan, Department of Nuclear Engineering, Ann Arbor, MI	July 2010-present
	<ul style="list-style-type: none"><li>• Developing, analyzing, and applying novel techniques for the uncertainty quantification of computer models for nuclear reactor core simulation.</li><li>• Thesis work in the construction of surrogates for computer models with large numbers of correlated, stochastic inputs.</li><li>• Coupled software to apply uncertainty quantification techniques to time-dependent reactor simulations in a parallel computing environment.</li></ul>	
	<i>Undergraduate Intern</i> Idaho National Laboratory, Idaho Falls, ID	Summer 2009
	<ul style="list-style-type: none"><li>• Investigated effects of placing gas gap in irradiation capsule experiments at the Advanced Test Reactor.</li><li>• Used finite element analysis to obtain a uniform specimen temperature profile by adjusting gas gap parameters.</li><li>• Investigated the minimum size of coolant flow channel for design experiments needed to meet thermal-hydraulic safety requirements.</li></ul>	
	<i>Research Experience for Undergraduates</i> Brigham Young University, Department of Mathematics, Provo, UT	Summer 2008
	<ul style="list-style-type: none"><li>• Researched Lagrangian formulations of mechanics with designer conservation laws.</li></ul>	

<b>PUBLICATIONS</b>	A. Yankov and T. Downar, "Application of Adaptive Hierarchical Sparse Grid Collocation to the Uncertainty Quantification of Nuclear Reactor Simulators," <i>International Conference on Mathematics and Computational Methods Applied to Nuclear Science and Engineering</i> , Sun Valley, Idaho, USA, May 5-9, 2013.	
	A. Yankov, B. Collins, M. Klein, et al., "A Two-Step Approach to Uncertainty Quantification of Core Simulators," <i>Science and Technology of Nuclear Installations</i> , vol. 2012, Article ID 767096, 9 pages, 2012. doi:10.1155/2012/767096.	
	A. Yankov, B. Collins, M. A. Jessee, et al., "A Generalized Adjoint Approach for Quantifying Reflector Assembly Discontinuity Factor Uncertainties," <i>Proc. PHYSOR 2012</i> , Knoxville, Tennessee, USA, April 15-20 (2012).	
	<ul style="list-style-type: none"> <li>• Won best student paper award.</li> </ul>	
	A. Yankov, M. Klein, M. A. Jessee, et al., "Comparison of XSUSA and Two-Step Approaches for Full-Core Uncertainty Quantification," <i>Proc. PHYSOR 2012</i> , Knoxville, Tennessee, USA, April 15-20 (2012).	
<b>CONFERENCES ATTENDED</b>	Reduced Order Modeling in General Relativity California Institute of Technology, Pasadena, CA	June, 2013
	Mathematics and Computation American Nuclear Society, Sun Valley, ID	May, 2013
	Uncertainty Analysis in Best-Estimate Modeling Karlsruhe Institute of Technology, Karlsruhe, Germany	May, 2012
	PHYSOR Advances in Reactor Physics Oak Ridge National Laboratory, Knoxville, TN	April, 2012
	Modeling, Experimentation, and Validation School Argonne National Laboratory, Argonne, IL	July, 2011
<b>EXTRA-CURRICULAR ACTIVITIES</b>	Tough Mudder 2012	
	Detroit Free Press Half-Marathon 2012	
	Ann Arbor Marathon 2013 (3:45)	
	Detroit Free Press Marathon 2013 (3:35)	
	Ann Arbor Parks and Recreation Ice Hockey	
	Predictive Analytics of Southeast Michigan Meetup Group	
	Blogging Kaggle	