

# Samuel A. Briggs

CONTACT INFORMATION	Research Assistant Engineering Physics Department University of Wisconsin-Madison 1500 Engineering Drive, Rm 905 Madison, WI 53706 USA	+1-503-302-4439 sabrighs2@wisc.edu sam.briggs07@gmail.com samuelabriggs samuelabriggs.com
QUALIFICATIONS	Nuclear engineering & Engineering Physics Ph.D. candidate with 5+ years of experience in radiation effects in materials for nuclear systems. Excels at utilization of analytical microscopy for advanced materials characterization, collaborating with multidisciplinary research and design teams, and utilizing unique capabilities at scientific user facilities through successful proposal writing. U.S. citizen with established record of being an effective communicator through internationally attended presentations and forthcoming publications in peer-reviewed journals.	
EDUCATION	<b>University of Wisconsin - Madison, Madison, WI</b> Ph.D., Nuclear Engineering & Engineering Physics, 2016 (Forthcoming) <b>Research Area:</b> <i>Radiation Damage Effects in Ni- and Fe-based alloys</i> – Graduate Advisor: Dr. Todd R. Allen & Dr. Kumar Sridharan M.S., Nuclear Engineering & Engineering Physics, 2013 <b>Oregon State University, Corvallis, OR</b> B.S., Nuclear Engineering, 2011 – Honors: <i>Summa cum laude</i> – Minors: Mathematics & Chemistry	2011 to present        2007 to 2011
PROFESSIONAL EXPERIENCE	<b>University of Wisconsin - Madison, Madison, WI</b> <i>Research Assistant, Engineering Physics Department,</i> – Investigated dependencies of point defect kinetics relating to segregation and precipitation phenomena affecting long-term operational exposure of Fe-Cr-Al alloys in radiation environments using analytical electron microscopy and atom probe tomography techniques. – Compared effects of composition and irradiating ion species on microstructure in ion irradiated Ni-Cr model alloys. <b>Pacific Northwest National Laboratory, Richland, WA</b> <i>Technical Intern Level 4, Master's Intern</i> – Constructed computer models of design components using the SolidWorks 2009 software for visualization and stress analyses. – Simulated radiation transport for shielding, safety and benchmark calculations with MCNP5 and the Attila discrete ordinance code. <b>NuScale Power, Corvallis, OR</b> <i>Student Intern</i> – Prepared engineering scoping calculations and process flow diagrams for various primary and balance-of-plant reactor systems.	2011 to present        2009 and 2011      2010
SAMPLE PUBLICATIONS	<p>[1] <b>S.A. Briggs</b>, C.M. Barr, J. Pakarinen, M. Mahmivand, K. Hattar, D.D. Morgan, K. Sridharan, M. Taheri. Comparison of microstructure in proton and heavy ion irradiated Ni-Cr binary alloys. Accepted in <i>Journal of Nuclear Materials</i>, 2016.</p> <p>[2] P.D. Edmondson, <b>S.A. Briggs</b>, Y. Yamamoto, R.H. Howard, K. Sridharan, K.A. Terrani, K.G. Field. Irradiation-Enhanced <math>\alpha'</math> Precipitation in Model FeCrAl Alloys. Accepted in <i>Scripta Materialia</i>, 2016. <a href="https://dx.doi.org/10.1016/j.scriptamat.2016.02.002">https://dx.doi.org/10.1016/j.scriptamat.2016.02.002</a></p>	