GWENDOLYN J. CHEE

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EDUCATION

PhD	**University of Illinois at Urbana-Champaign**	2019 - Present
	Nuclear, Plasma and Radiological Engineering	
	Research focus: Predictive Analytics to Optimize Nuclear Reactor Designs.	
MS	**University of Illinois at Urbana-Champaign**	2017 - 2019
	Nuclear, Plasma and Radiological Engineering	
	Thesis: Sensitivity Analysis of Nuclear Fuel Cycle Transitions	
BASc	**Queen's University at Kingston, Canada**	2013 - 2017
	Engineering Physics	
	Thesis: Designing a System to Gaseous Hydrogen Charge Zirconium Alloys	

RESEARCH EXPERIENCE

University of Illinois at Urbana-Champaign   2017 - Present
Research Assistant, Advanced Reactors and Fuel Cycles   *Urbana, IL*
Advisor: Professor Kathryn D. Huff

Argonne National Laboratory   May 2019 - Aug 2019
Research Aide   *Lemont, IL*
Advisor: Dr. Bo Feng
Coupled Dymond with Dakota to perform sensitivity analysis on nuclear fuel cycle transitions.

Queen's University at Kingston   2016 - 2017
Research Assistant, Nuclear Materials Research Group   *Kingston,ON*
Advisor: Professor Mark Daymond
Designed a Sieverts Apparatus to gaseously charge hydrogen gas into zirconium alloys to mimic hydrogen embrittlement of zirconium alloys used in nuclear reactors.

National University of Singapore   May 2016 - Aug 2016
Research Assistant, Centre for Advanced 2D Materials   *Singapore*
Advisor: Professor Jens Martin
Developed a MATLAB script to study the effect of Berry Curvature on electrons in graphene and the effects of changing the geometry of graphene devices on their electric fields.

Nanyang Technological University   May 2015 - Aug 2015
Research Assistant, Polymeric Biomaterials Group   *Singapore*
Conducted experiments to characterize nanoparticle enhanced polymer materials to determine the material combination that best increases the mechanical properties of biodegradable heart stents.

ENGINEERING EXPERIENCE

4th Year Engineering Physics Capstone Project   2016
Self Sorting Recycling Bin   *Kingston,ON*
Developed a neural network to sort between recycling and garbage through image recognition and sound profiling. Led the mechanical team to prototype the physical design which used feedback from the neural network to physically separate the items.

TEACHING EXPERIENCE

Queen's University at Kingston   2015 - 2017
Teaching Assistant, Physics Department   *Kingston,ON*
Conducted weekly help sessions for students who required extra guidance in first year physics courses
(PHYS 104/106).

SERVICE

U.S. Women in Nuclear   2018 - Present
President   *Urbana, IL*
Leads the UIUC WiN chapter to uplift the mission of professional development, educational outreach,
and a sense of community amongst our members.
WiN CV: *https* : *//github.com/gwenchee/wincv*

CONFERENCE PRESENTATIONS

ANS Winter Meeting   Nov 2018
Presentation   *Orlando, FL*
G.J. Chee, G. Park and K.D. Huff. "Validation of Spent Nuclear Fuel Output by Cyclus, a Fuel Cycle
Simulator Code".

ANS Student Conference   Mar 2018
Presentation   *Gainesville, FL*
G.J. Chee, J.W. Bae and K.D. Huff. "Numerical Experiments for testing Demand-Driven Deployment
Algorithms".

TECHNICAL REPORTS

Advanced Reactors and Fuel Cycles Report Series   Apr 2018
Report UIUC-ARFC-2018-01   *Urbana, IL*
G.J. Chee, J.W. Bae and K.D. Huff. "Numerical Experiments for testing Demand-Driven Deployment
Algorithms".

SELECTED AWARDS AND RECOGNITION

Queens University Deans Scholar   2014-2017

TECHNICAL STRENGTHS AND OTHER RELEVANT SKILLS

Computer Languages	Python, C++, MATLAB, LabVIEW, Solid Edge, HTML
Protocols & APIs	XML
Tools	LaTeX, Mathematica, shell, vim, bash, atom, Jupyter, MS Word, MS Excel
Databases	MySQL
Nuclear Software	Cyclus , PyNE
Languages	English, Mandarin