KATHERINE (RAVEN) RUSSELL

+1 703.993.3339
KRUSSELC@GMU.EDU

EDUCATION

Ph.D.	Computer Science, George Mason University, *Distinguished Academic Achievement Award (Departmental)*	2020
M.S.	Computer Science, George Mason University, *Distinguished Academic Achievement Award (Departmental)*	2012
B.S.	Computer Science, University of Maryland University College,	2007, *Cum Laude*
A.A.	General Studies, Anne Arundel Community College,	2004, *Summa Cum Laude*

TEACHING EXPERIENCE

2015-Present, *Assistant Professor (2021-Present), Instructor (2015-2021),* George Mason University, Fairfax, VA

CS 112. Introduction to Computer Programming *[Mason Core – IT&C]*

CS 211. Object Oriented Programming

CS 310. Data Structures

CS 321. Software Engineering / Software Requirements and Design Modeling *[WAC Course]*

CS 390. Research and Project Design Principles in Computing *[OSCAR Inquiry Level Course]*

CS 483. Analysis of Algorithms, and CS 583. Analysis of Algorithms *[Graduate]*

INFS 519. Program Design and Data Structures *[Graduate]*

2014-2015, *Adjunct Faculty,* George Mason University, Fairfax, VA

2009–2013, *Graduate Teaching Assistant,* George Mason University, Fairfax, VA

2006–2007, *Computer Science Tutor,* Anne Arundel Community College, Arnold, MD

Teaching Awards and Honors

Teacher of Distinction, Stearns Center for Teaching and Learning, George Mason University, 2020

Outstanding Teaching Award, Department of CS, George Mason University, 2020

Outstanding Graduate Teaching Award, Department of CS, George Mason University, 2013

Distinguished Graduate Teaching Award, Department of CS, George Mason University, 2012

[Finalist] Teaching Excellence Award, Stearns Center for Teaching and Learning, George Mason University, 2020

PROFESSIONAL EXPERIENCE

2013–2015, *Senior Developer (2014-2015), Developer (2013-2014),* Forum One, Alexandria, VA

Website development (JS & CMS) for large government agencies and nonprofit companies.

2010–2011, *Graduate Research Assistant,* George Mason University, Fairfax, VA

NLP module development for cognitive assistants and argument evaluation software.

2004–2010, *Full Stack Web Developer,* eMcDermott/BONZOLIO, Oceanside, CA

L/WAMP+JS/CSS website development and eCommerce stores for various companies.

2004–2009, *Web and Support Developer,* PICnet, Washington, D.C.CMS website development and extension for nonprofit companies.

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ACADEMIC SERVICE AND UNIVERSITY INVOLVEMENT

Faculty Development (George Mason University):

CS SIMPLE Teaching Group, Coordinator (2017-present), Member (2015-2017)

Faculty teaching group designed to help faculty make small, incremental changes to their teaching. Also provides mentoring and support for new faculty.

NSF IUSE Project (1821589), *Interdepartmental*, Participant/Contributor, 2020-present

Course-Based Community of Transformation (CCT) project for Improving Undergraduate STEM Education (IUSE) with teachers in Engineering, Math, and other Scientific Disciplines. Presentation: "Motivating Students to Come to Class".

Inclusive Engineering and Computing Curriculum Building Project (Stearns Center ARIT Grant), *Interdepartmental*, Participant/Contributor, Summer 2022

A course development summer workshop through the Stearns Center for Teaching and Learning's Anti-Racist and Inclusive Teaching Project.

Teaching Squares Project (Stearns Center), *Interdepartmental*, Participant, Multiple Years

Teaching development through regular meetings with faculty across the university in small groups ("Squares") designed to share techniques and new ideas, and provide community support.

Department Service (Computer Science, George Mason University):

Course Coordinator, Various semesters from 2016-present

Primary course coordinator for multi-instructor sections with large graduate and undergraduate teaching assistant populations (typically 10-25 people).

Undergraduate Faculty Advising, 2016-present

Advising incoming and returning students on their degree progress, plans of study, future career plans, working in industry, resume development, and life in general.

Undergraduate Studies Committee, Member, 2015-present

Curriculum design, planning, and approval for the undergraduate degree programs.

Other Committee and Support Work:

Term Faculty Recruitment and Hiring Committee, Member, 2017-2018

Course Re-Development, CS531: Fundamentals of Systems Programming, Fall 2018

New Course Development, CS390: Research and Project Design Principles, Fall 2012

Website Committee, Member, 2017-2020

University Service (George Mason University):

University Standing Committee. *Writing Across the Curriculum Committee,* College of Engineering and Computing Representative, 2021-present

Advise the University Coordinator on Writing Across the Curriculum.

University Standing Committee. *Effective Teaching Committee,* Member, 2021-2023

Develop and help implement procedures which reward effective teaching and to recommend policy to the Faculty Senate for the evaluation of teachers and courses.

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Office of Student Scholarship, Creative Activities, and Research. *Student Scholarly Activities Committee,* Member, 2018-2020

Review and approve applications for the Undergraduate Research Scholars Program (URSP) and Undergraduate Student Travel Fund (USTP).

Other Mentoring & Club Involvement:

RoboPatriots Team, Graduate Student Member, George Mason University, 2010–2012

GMU Kendo Club, Club Mentor, George Mason University, Fall 2010

Japanese Language Club, Club Mentor, Anne Arundel Community College, 2005–2009

PUBLICATIONS

Conference and Workshop Papers:

(1) Russell, K., Simon, R. *Efficient Data Advertisement in Information Centric Disruption Tolerant Networks*. In Proceedings of the 2020 International Workshop on Computing, Networking and Communications, Kailua-Kona, Hawai'i, February 2020.

(2) Russell, K., Simon, R. *Evaluation of a Geo-region Based Architecture for Information Centric Disruption Tolerant Networks*. In Proceedings of the 2019 International Conference on Computing, Networking and Communication, Honolulu, Hawai'i, February 2019.

(3) Luke, S., Russell, K., Hoyle, B. *Ant Geometers*. In Proceedings of the Fifteenth International Conference on the Synthesis and Simulation of Living Systems, Cancun, Mexico, July 2016.

(4) Russell, K., Schader, M., Andrea, K., Luke, S. *Swarm Robot Foraging with Wireless Sensor Motes*. In Proceedings of the 14th International Conference on Autonomous Agents and Multiagent Systems, Istanbul, Turkey, May 2015.

(5) Sullivan, K., Russell, K., Andrea, K., Stout, B., Luke, S., *RoboPatriots: GMU 2012 RoboCup Team*. In Proceedings of the 2012 RoboCup Workshop, Mexico City, Mexico, June 2012.

(6) Tecuci, G., Marcu, D., Boicu, M., Schum, D., Russell K., *Computational Theory and Cognitive Assistant for Intelligence Analysis*, in Proceedings of the Sixth International Conference on Semantic Technologies for Intelligence, Defense, and Security, pp. 68-75, Fairfax, Virginia, USA, November 2011.

(7) Tecuci, G., Schum, D., Boicu, M., Marcu, D., Russell, K., *Toward a Computational Theory of Evidence-based Reasoning*, 18th International Conference on Control Systems and Computer Science, University Politehnica of Bucharest, Bucharest, Romania, May 2011.

Research Reports & Other Written Publications:

(8) [Dissertation] K. Russell, "Large Scale Ad Hoc Information Centric Networks in Disrupted Environments," PhD Thesis, George Mason University, 2020.

(9) Luke, S. and Russell, K. *Portable Sensor Motes as a Distributed Communication Medium for Large Groups of Mobile Robots*. Specialists Meeting on Swarm Centric Solution for Intelligent Sensor Networks (SET-222), Rome, Italy, June 2016.

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(10) Russell, K., *Computer Abduction.* Research Report 10, Learning Agents Center, George Mason University, October 2013.

(11) Tecuci, G., Boicu, M., Schum, D., Marcu, D., Russell, K., *Disciple Cognitive Assistants for Complex Decision Making under Uncertainty.* Research Report 6, Learning Agents Center, George Mason University, April 2011.

Additional Presentations & Posters:

(12) [Presentation] N. Kathir et al., "SHOWCASE: Online Class Meetings: Activities and Strategies to Engage Students (90 mins)," in Innovations in Teaching & Learning Conference Proceedings, 2021, vol. 13. [published as R. Russell]

(13) [Presentation] G. Belle, V. Grady, K. King, K. Rosenbusch, R. Russell, and A. Yuckenberg, "SHOWCASE: Managing Groups in Online Environments (90 mins)," in Innovations in Teaching & Learning Conference Proceedings, 2021, vol. 13. [published as R. Russell]

(14) [Poster] *Named Data Networking for Scalable Intermittently Connected Networks*. Named Data Networking Community Meeting, Gaithersburg, Maryland, USA, September 2019.

(15) [Poster] *Pheromone-based Task Swarms*. 2016 PhD CS Research Symposium, Fairfax, Virginia, USA, March 2016.