**Faculty Profile:** [**Dominick Rizk**](https://engineering.catholic.edu/research-and-faculty/faculty-profiles/eecs/dominick-rizk/index.html)

Assistant Professor

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**Research Interests and Expertise:**

Hardware security, Social Cybersecurity, Artificial intelligence, Machine/Deep Learning, Data Science and Analytics, Internet of Medical Things, High-Performance Computer Architecture, Reversible Logic, Quantum Computing, VLSI, and Emerging Technologies

**Biography:**

Dr. Dominick Rizk is currently an Assistant Professor in the department of Electrical Engineering and Computer Science at the Catholic University of America and the director of Center for Advanced Research in Computer Engineering (CARCE). Dr. Rizk received the B.E. degree in computer and communication engineering Summa Cum Laude highest honor distinction from Notre Dame University. He received his M.S. and Ph.D. degrees in Computer Engineering from the University of Louisiana at Lafayette (R1 Carnegie classification) while maintaining a perfect grade point average. He co-founded the Laboratory for Advanced Studies Research. He served as a Post-doctoral Research Fellow at ULL. Dr. Rizk has collaborated actively with researchers in several other disciplines of informatics, computer science, and engineering, ranging from theory to design to implementation, and has published several research papers in top-tier conferences and journals. He is the recipient of the prestigious ULL Dissertation Completion Fellowship. Dr. Rizk is also the recipient of many prestigious awards including the President's Award for Educational Excellence and Outstanding Academic Achievement and the Ragin' Leadership Academy Award.

**Five Selected Papers:**

1. **D. Rizk**, R. Rizk, F. Rizk and A. Kumar, "An Economic Uniqueness-Improved Reliable Reconfigurable RO PUF for IoT Security," *2022 IEEE International Symposium on Circuits and Systems (ISCAS)*, Austin, TX, USA, 2022, pp. 1680-1684.
2. R. Rizk, **D. Rizk**, F. Rizk, A. Kumar and M. Bayoumi, "A Resource-Saving Energy-Efficient Reconfigurable Hardware Accelerator for BERT-based Deep Neural Network Language Models using FFT Multiplication," 2022 IEEE International Symposium on Circuits and Systems (ISCAS), Austin, TX, USA, 2022, pp. 1675-1679.
3. F. Rizk, **D. Rizk**, R. Rizk and A. Kumar, "A Cost-Efficient Reversible-Based Reconfigurable Ring Oscillator Physical Unclonable Function," 2022 IEEE International Symposium on Circuits and Systems (ISCAS), Austin, TX, USA, 2022, pp. 1685-1689.
4. Rizk, R., **Rizk, D.**, Rizk, F. *et al.* 280 characters to the White House: predicting 2020 U.S. presidential elections from twitter data. *Comput Math Organ Theory* **29**, 542–569 (2023).
5. C. E. Moucary, A. Kassem, **D. Rizk**, R. Rizk, S. Sawan and W. Zakhem, (2024). A low-cost full-scale auto eye-tracking system for mobility-impaired patients, AEU - International Journal of Electronics and Communications, Urban & Fischer, 174, 155023.

**Professional Activities**

* NSF Reviewer, 2024
* Judge for the Louisiana Region VI Science and Engineering Fair.
* Licensed Professional Engineer
* Member of the Order of the Engineer in the United States.
* Reviewer for numerous prestigious conferences and journals
* Lifetime member of the Phi Kappa Phi honor society
* Professional member of ACM and IEEE.
* Goodwill Ambassador
* Member of the IEEE Young Professionals, IEEE Women in Engineering, IEEE Biometrics Council, IEEE Council on Electronic Design Automation, IEEE Council on RFID, IEEE Council on Superconductivity, IEEE Nanotechnology Council, IEEE Sensors Council, IEEE Systems Council , IEEE Computer Society Special Technical Community on Autonomous Driving Technologies, IEEE Computer Society Special Technical Community on Cyber Security, IEEE SIGHT, IEEE Computer Society Special Technical Community on Internet of Everything, IEEE Quantum Community, IEEE Standards Association, IEEE Computer and Quantum Society.