

Alessandro N. Baccarini

CONTACT INFORMATION 338Y Davis Hall anbaccar@buffalo.edu
Department of Computer Science and Eng. Website
University at Buffalo
Buffalo, NY 14260

RESEARCH INTERESTS Cryptography, Internet of Things (IoT) Security.

EDUCATION **University at Buffalo**, Buffalo, NY
Ph.D., Computer Science, *Expected*: Spring 2024.
• Advisor: Marina Blanton
Fordham University, Bronx, NY
M.S., Cybersecurity, Spring 2019.
• Topic: *Encryption Algorithms for Low-Resource IoT devices*
• Advisor: Thayer Hayajneh
B.S., Physics, Mathematics Minor, May 2017.
• Advisors: Vassilios Fessatidis and Christopher Aubin,

RESEARCH EXPERIENCE **Research Assistant** Summer 2017 – Spring 2019
Fordham Center for Cybersecurity
Areas:
• *Encryption Techniques on IoT Devices*
• *Blockchain Applications in Healthcare*
• *Biometric Authentication Using Machine Learning*
Fordham University
Advisor: Thayer Hayajneh
Department of Physics & Engineering Physics
Areas:
• *Lattice Quantum Chromodynamics*
• *Numerical Relativity*
Fordham University
Advisor: Christopher Aubin

PUBLICATIONS

1. **Baccarini, A.N.**, Hayajneh, T. “Evolution of Format Preserving Encryption on IoT Devices: FF1+.” *Proceedings of the 52nd Hawaii International Conference on System Sciences*. University of Hawaii at Manoa. Honolulu, HI. 2019.
2. Alhayajneh, A., **Baccarini, A.N.**, Weiss, G.M., Hayajneh, T., Farajidavar, A. “Biometric Authentication and Verification for Medical Cyber Physical Systems.” *Electronics*, 7(12), 436. 2018. IF: 2.110
3. Griggs, K.N., Ossipova, O., Kohlios, C.P., **Baccarini, A.N.**, Howson, E.A., Hayajneh, T. “Healthcare Blockchain System Using Smart Contracts for Secure Automated Remote Patient Monitoring.” *J Med Syst*, 42: 130. 2018. IF: 2.415
4. Alhayajneh, A., **Baccarini, A.N.**, Hayajneh, T. “Quality of Service Analysis of VoIP Services.” *IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON) 2018*. Columbia University. New York, NY. 2018.

TEACHING EXPERIENCE	Instructor	Summer 2020
	CSE 116 – Computer Science 2 Department of Computer Science & Engineering University at Buffalo	
	Teaching Assistant	Spring 2020
	CSE 542 – Software Engineering Concepts Professor: Matthew Hertz Department of Computer Science & Engineering University at Buffalo	
	Instructor	Fall 2017 – Spring 2019
	PHYS 1511-12 – Physics I and II Labs Department of Physics & Engineering Physics Fordham University	
	Tutor	Fall 2017 – Spring 2018
	Calculus, Finite Mathematics Collegiate Science and Technology Entry Program (CSTEP) Fordham University	
	Teaching Assistant	Summer 2016 – Spring 2017
	PHYS 1511, 1512 – Physics I and II Labs Department of Physics & Engineering Physics Fordham University	
	Grader	Fall 2014 – Spring 2017
	PHYS 1511, 1512, 3401 – Physics I/II Labs, Thermo. & Stat. Physics MATH 1000, 1100 – Precalculus, Finite Mathematics CISC 1100 – Discrete Structures of Computer Science Departments of Physics & Engineering Physics, Mathematics, and Computer & Information Science Fordham University	
AWARDS	Student Awards – Fordham University, Graduate School	
	• GSAS Centennial Scholarship	2017 – 2019
	Student Awards – Fordham University, College of Rose Hill	
	• Fordham Jouges Scholarship	2013 – 2017
	• Eugene O’Brien SJ Scholarship	2013 – 2017
	• Edwin Mellett Scholarship	2014 – 2017
SKILLS & INTERESTS	<i>Languages & Software:</i> C/C++, Python, Solidity, Golang, Mathematica, LaTeX, Vim.	
	<i>Operating Systems:</i> Windows, macOS, Linux.	
REFERENCES	Available upon request.	