

# Mary Ogunmola

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## EDUCATION

- Ph.D.,**                      **University of Utah**  
Computer Science (expected 2030)  
Advisor: Professor Robert Ricci.  
Research areas: Distributed systems; Confidential computing; Cloud security;  
5G networks.
- B.Sc.,**                      **Joseph Ayo Babalola University**  
Computer Science (2023)  
Thesis: *Development of a Mobile-Based Courseware to Improve Accessibility of Academic Resources.*

## RESEARCH INTERESTS

Distributed systems; Cloud computing; Virtualization; Cloud security;  
Confidential computing; 5G networks.

## RESEARCH EXPERIENCE

- 2025 – Present            **Research Assistant**, Flux Research Group, University of Utah.  
Advisor: Professor Robert Ricci.  
Developing hardware-assisted security mechanisms for 5G network functions in cloud environments and building a benchmarking framework to evaluate latency and performance overhead.
- 2023 – 2024              **Research Assistant**, Joseph Ayo Babalola University.  
Advisor: Dr. V. A. Olutayo.  
Developed a unified academic resource database and cross-platform app that improved accessibility by over 120%, and conducted an enterprise case study on cloud-centric IoT transformations to formulate cost-optimized, security-aware migration strategies.

## PROFESSIONAL EXPERIENCE

- 2024 – 2025              **Software Engineer**, i-Vantage Technology, Lagos, Nigeria.
- 2024                        **Cybersecurity Analyst**, Hacktify

## TEACHING EXPERIENCE

- 2021 – 2023      **Tutor**, Nigerian Association of Computing Students, Joseph Ayo Babalola University.  
*CS 314, CS 220*
- 2022              **Technical Instructor**, JIT Solutions Technology.  
*Javascript, Typescript*

## PUBLICATIONS

- 2024              Olutayo, V.A., & **Ogunmola, M.A.** “An Enhanced Courseware Accessibility Mobile-Based Learning System Model.” *African Journal of Information Systems*. (Manuscript).
- 2024              Adeniran, A.O., Onuajah, S.I., Adeniran, A.A., & **Ogunmola, M.A.** “Implementing Cloud-Centric IoT Transformations: Merits and Demerits.” *Systemic Analytics*, 2(2), 174–187.

## CONFERENCES AND SEMINARS

- Nov 2024          Attendee, 6th International Conference on Cybersecurity and Cloud, Comercio.
- Jul 2024          Attendee, IoT West Africa Conference & Exhibition, Lagos, Nigeria.
- Jun 2023          Presenter, Seminar, Joseph Ayo Babalola University — “Improving the Accessibility of Academic Resources in Education Institutions.”

## HONORS AND AWARDS

- 2025              University of Utah Graduate Fellowship.
- 2024              EducationUSA Opportunity Funds Award.
- 2023              Overall Best Graduating Student (Valedictorian), Joseph Ayo Babalola University; Dean’s Prize; University Scholar; Pro Chancellor’s Prize; Parent Forum’s Prize; Most Outstanding Student (Nigerian Association of Computing Students).

## LEADERSHIP AND COMMUNITY SERVICE

- 2025 – Present**      **Secretary**, Graduate Student Advisory Council (GradSAC), University of Utah.
- 2024**              **Community Organizer**, AWS Nigeria User Group.
- 2024**              **Member**, NYSC Medical Community Development Service Group.

**2022 – 2023**      **Team Leader**, NACOS JABU Academic Committee.

## TECHNICAL SKILLS

**Security & Privacy:** Confidential Computing (Intel SGX, Intel TDX, Gramine); Threat modeling; SIEM (Splunk, ELK); Penetration testing (Burp Suite, Nmap).

**Networking:** 5G Core Networks; Open5GS; Wireshark; tcpdump.

**Cloud & Distributed Systems:** Kubernetes; Docker; AWS; GCP; Azure; Terraform; CI/CD (Jenkins).

**Programming:** C; Python (Scikit-learn); JavaScript; TypeScript; React; React Native; ExpressJS; SQL; Java; Linux.

## PROFESSIONAL AFFILIATIONS

Association for Computing Machinery.  
IEEE Computer Society  
National Society of Black Engineers  
Society of Women Engineers