

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