

Postdoctoral position at CMU-Africa in digital identity management systems in resource/infrastructure limited environment

Carnegie Mellon University Africa (CMU-Africa, <https://www.africa.engineering.cmu.edu/>) invites applications for a fully funded postdoctoral research associate position around *the design, implementation, and deployment of digital identity management systems in resource/infrastructure limited environment*.

The College of Engineering at Carnegie Mellon University, a world leader in information technology, cybersecurity and privacy, engineering and artificial intelligence, has extended its global reach into Africa. Offering master's degrees to full-time resident students from many countries across Africa at our base in Kigali, Rwanda, CMU-Africa is preparing future African technology leaders through education and research. The postdoctoral fellow will be advised jointly by CMU faculty members from Kigali and from Pittsburgh.

Digital financial services (DFS) constitute a key strategic pillar to advance financial inclusion in developing regions. Financial inclusion leverages innovative digital technologies involving new players, new business models, and new distribution channels servicing a set of new consumers typically using low-cost devices with limited security features. However, given the digital nature of financial service delivery in low capacity countries, cyber risk is rapidly growing and dynamically evolving. A large hack of a financial inclusion related system erodes trust in DFS from both regulators as well as consumers. Hence, protecting DFS in underserved areas should be a priority in the digitalization process of economies.

A common challenge among financial enterprises is the need for identity management. A robust identity management system can help mitigate fraud and money laundering, while streamlining citizens' access to services. However, identity management systems are often difficult to deploy in regions with limited infrastructure, trained professionals and technology budgets. The role of the postdoc will be to develop high quality and development of Digital Identity management systems in resources/infrastructure limited environment. The work will also involve building a testbed deployment of [MOSIP](#): an open-source digital identity management system. The successful candidate is also expected to actively participate in the design, implementation and exploitation of surveys to be conducted among African fintech operators, end-users, and regulators to better understand the cyber-readiness and investment landscape in cybersecurity within the financial sector in Africa.

This is an opportunity to work on a challenging scientific problem in a highly interdisciplinary and vibrant environment. The postdoc will work at CMU-Africa as part of a team of researchers from both Africa and the US.

Requirements: Candidates must hold (or be close to completing) a Ph.D. in Computer Networks Security, Electrical Engineering, Computer Science, or a related field. Ph.D. holders with a strong publication record, strong programming skills and a background in networks and network security are encouraged to apply. Experience in information and communication technology for development (ICT4D) is a plus. CMU-Africa is committed to the professional development of its

members, making this position a valuable preparation for those interested in academic, industrial, or entrepreneurial careers. The position has no mandatory teaching or administrative duties, although successful candidates will be mentored in teaching, as valuable preparation for a faculty career.

The ideal start date is January 2021 or earlier. Applications will be accepted on a rolling basis. The position is initially for 12 months with the possibility of renewal. Compensation will be commensurate with relevant experience. CMU-Africa has competitive benefits (including comprehensive medical insurance) and is an equal opportunity employer. Candidates should submit a CV, a statement of research experience and interests, expected date of availability, and the contact information for three references [here](#). Application review will continue until the position is filled.