Hood S. Mukiibi

hudmukiibi@gmail.com || rudegentleman.github.io || +256 775 142 292

Research Interests

Computer Security; Usable Security and Privacy; Cyber Psychology

Education

2016 - 2018   Carnegie Mellon University - Pittsburgh, PA
Master of Science in Information Technology
Advisor: Prof. Edwin Mugume

2008 - 2012   Makerere University - Kampala, Uganda
Bachelor of Science in Computer Science
Advisors: Dr. Mary Nsabagwa, Dr. John Ngubiri and Dr. Ronald Azairwe

Publications

2019   **Cyber Security in Africa: The boring technology story that matters**
H Mukiibi (XRDS: Crossroads, The ACM Magazine for Students 26 (2), 56-59)

Teaching Experience

Spring 2021   **Teaching Assistant: Intrusion Detection Systems (04-800),**
Carnegie Mellon University.
I provided in-class support to students, administered and graded assignments, conducted guided student labs as well as developed class quizzes. The IDS class introduced students to fascinating mathematical fields such as Probability theory, Statistics and Detection Theory which are all underlying components of intrusion detection systems (IDS).

Spring 2019   **Teaching Assistant: Wireless Networks (18-759-RW), Carnegie Mellon University.**
I provided support to students for this course and this included administering and grading of assignments, conducting guided student labs and development of class quizzes. The class introduced students to fundamental concepts of wireless networks as well as an overview of wireless data communications standards among other advanced topics.

Fall 2018   **Teaching Assistant: Vulnerability Assessment and Penetration Testing (04-800K),**
Carnegie Mellon University.
I provided support to students for this course and this included administering and grading of assignments, conducting guided student labs and development of class quizzes. The course introduces students to professional penetration testing by teaching offensive security tactics, along with the appropriate methodologies and responsibilities it takes to ethically attack systems.

Spring 2018	**Teaching Assistant: Wireless Networks (18-759-RW), Carnegie Mellon University** I provided support to students for the course Wireless Networks. This included administering and grading of assignments, conducting guided student labs and development of class quizzes. The class introduced students to fundamental concepts of wireless networks as well as an overview of wireless data communications standards among other advanced topics.
Fall 2017	**Teaching Assistant: Internet of Things (04-801-N), Carnegie Mellon University.** I provided support to students for this course and this included administering and grading of assignments, conducting guided student labs and development of class quizzes. In this course, students learned how to interconnect different Things to the Internet, using well-known web technologies. Students also learned how to send back information to the Things to actuate a given requirement.

Industry Experience

2019 - Present	**Lead Security Engineer: Tabiri Analytics Inc - Kigali, Rwanda** I am part of an amazing team that is building and designing a smart automated intrusion detection system that utilizes open source tools as well as machine learning concepts to detect threats and anomalies in systems.
Fall 2017	**System Architecture Intern: Inmarsat - Kigali, Rwanda** For my graduate practicum, we designed and tested LoRaWan enabled sensors within a tea factory to supplement the tea manufacturing process to come up with desired optimal tea grades. The project focused on the fermentation process of tea where smell, image, temperature and humidity sensors were used to supplement the existing human expert knowledge.
Summer 2017	**Information Security Analyst Intern: Rwanda Revenue Authority - Kigali, Rwanda** For my graduate internship, I worked on a project that assessed the cyber security measures implemented at this government revenue facility. Among other things, my work involved reviewing prior security audits, auditing IT business processes as well as laying a foundation for the ISO27001 certification.
2016 - 2018	**IT Support Technician: Carnegie Mellon University - Kigali, Rwanda** I provided first level support to students, faculty and staff for all their IT requests. This among other things involved setting up and configuring all classroom technology, managing the school local web servers as well as asset management.
2015 - 2016	**Engineer EUS: MTN - Multiple Locations** In this position, I offered essential support for all software and hardware related queries across five (5) operational locations (OPCOs) for MTN in Africa. This involved responding to internal client queries, solving technical problems as well as maintaining the organization's network, software and hardware peripherals. Notable projects worked on include planning and designing the internal technical process for the Office365

migration across all OPCOs, virtualization of the entire customer contact center for all OPCOs, automating customer queuing at customer service points across all OPCOs.

2013 - 2015   **Lead Service Desk Engineer: MTN - Multiple Locations**
In this position, I led a team of engineers that worked as a single first point of contact for all IT related queries in five operational countries (OPCOs) for MTN. This among other things involved managing global SLAs for all incidents raised and service requests made, in addition to monitoring and managing critical infrastructure and applications across the board.

2009 - 2011   **Customer Service Advisor: MTN Uganda - Kampala, Uganda**
In this position, I managed the customer service helpline by responding to all customer queries. This involved collecting and analyzing customer data, queries while also communicating with them on what strategies we are taking to improve productivity and customer satisfaction.

Technical Skills

Programming Languages

Java, Bash (Unix/Linux)

Security

Vulnerability Assessment, Penetration Testing, Log Monitoring (Wazuh, Sysmon), IDS/IPS (Security Onion, Snort, Suricata)

Service and Mentorship

2017 - Present **Rotaractor: Rotaract Club of Kigali City (RCKC) - Kigali, Rwanda**
I am an active member of RCKC where I've recently served as social media content creator. In this club, we collaborate with other youth in the execution of humanitarian service projects as well as building efforts towards peace, friendship and reconciliation within our community.

2017 - 2020   **Mentor and Trainer - GDG Kigali Chapter - Kigali, Rwanda**
Mentoring and introducing computing and programming concepts to youth in Kigali, Rwanda. Special focus was on high school students as well as fresh graduates.

Spring 2017   **Mentor and Trainer - Women in Tech Kigali Chapter - Kigali, Rwanda**
Mentoring and introducing computing and programming concepts to youth in Kigali, Rwanda specifically young girls. The essence is to encourage young women to take on STEM subjects.