GEORGE WILLIAM KASAAZI

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SUMMARY

I am a professional Computer Scientist and a passionate Educator with 8 years of experience, holding a Master's of Science Degree in Information Technology (Majoring Software Engineering) from Carnegie Mellon University. I have deep technical expertise in **Software Architecture and Design, Distributed Computing, Algorithmic Analysis, and full-stack development** with a strong research interest in advancing the state-of-the-art in **Software Engineering/Development, Data Science, and Artificial Intelligence (AI) implementations.** I am currently seeking for a PhD opportunity to enable me carry out rigorous research in foundational and applied software systems, motivated by a long-term goal of nurturing the next generation of highly skilled developers in Uganda.

EDUCATION

Master of Science in Information Technology | Carnegie Mellon University

AUGUST 2021 – MAY 2023 | MAJORING IN *SOFTWARE ENGINEERING*

Practicum Project: Virtual Hospital For The Benefit Of Remote And Underserved Communities – Health Gateway Africa Trust

Courses Taken: ***Design Patterns for Smartphone Development, Foundations of Software Engineering, Data Structures and Algorithms, Software Architecture and Design, Software Accessibility, Data, Inference and Applied Machine Learning,*** and ***Advanced Database Systems.***

CQPA: ***3.73/4.0***

Bachelor's Degree of Science in Information Technology and Computing | Kyambogo University

AUGUST 2017 – DECEMBER 2019

*Graduated as the **Overall Best Performing Student*** with a **CGPA** of **4.88/5.0**.

Diploma in Computer Science and Information Technology | Uganda Martyrs University

AUGUST 2014 – NOVEMBER 2016

*Graduated as the **Best Performing Student*** with a **CGPA** of **4.80/5.0**.

EXPERIENCE

Assistant Lecturer | Kyambogo University

August 2026 – to date

- Employed as an Assistant Lecturer in the Department of Networks, Data Science, and Artificial Intelligence.

Courses taught: *Data Structures and Algorithms, and Object Oriented Programming*

Graduate Trainee | Kyambogo University

JULY 2024 – July 2026

- Employed as a Graduate Trainee in the Department of Networks, Data Science, and Artificial Intelligence.

Courses taught: *Data Structures and Algorithms, Object Oriented Programming, Introduction to Programming, Multimedia Systems, and Distributed Computing Systems.*

Consultant | Uganda Martyrs University - UMU

JANUARY 2020 – to date

- Developed and taught high-level computing courses focused on hands-on implementation of the programming concepts.
- Contributed to student learning by introducing core principles of Machine Learning and AI through multi-campus bootcamps, demonstrating an ability to effectively communicate complex technical subjects to a diverse audience.

Courses taught: *Data Analytics with Python, Event-driven programming*, *Web-based Systems Programming, Object Oriented Programming, Principles of Programming, Structured Programming* (Undergraduate) and Advanced Web Systems Development and Web Services *(Graduate).*

Research Associate - Internship| Carnegie Mellon University

FEBRUARY 2023 – MAY 2023

- Contributed to research activities in the context of the *Architecture, Data Quality* and *Accessibility* of the "*Evidence-Based Road Safety: An Automatic Road Traffic Crashes Data Management System (AUTORTC-DMS)*" project, leading to a forthcoming publication.
- Focused work on defining the robust **Software Architecture, Data Quality pipeline,** and **functional specifications** critical for developing a scalable system.
- Worked on significant sections of the State Of The Art (SOTA) review for road traffic crash reporting, rigorously defining the existing technical landscape and recommending implementation best practices for the new system.

Graduate Teaching Assistant - Advanced Database Systems | Carnegie Mellon University

AUGUST 2022 – DECEMBER 2022

- **Designed and delivered structured workshop content and recitations**, providing hands-on support for graduate students.
- Held targeted **Office Hours** to address student questions, providing personalized technical support and mentoring that focused on translating complex system design and database concepts into accessible exercises and practical skills.

Research Assistant | Kigali Collaborative Research Center (KCRC)

June 2022 – DECEMBER 2022

- Contributed to the detailed technical review of the State Of The Art (SOTA), generating a foundational document that **specified the full technical scope** and established design principles for the entire AUTORTC-DMS project.
- Post-SOTA completion, conducted assessment of the project's **functional, business, and data Architecture** to ensure compliance with sponsorship requirements and system scalability.

Student Admin Support | Carnegie Mellon University

MAY 2022 – AUGUST 2022

Supported staff with various tasks throughout the summer with the following responsibilities:- front desk support, support for printing, scanning papers and books, facilitating preparations for events, and conducting surveys.

Student IT Support | Carnegie Mellon University

FEB 2022 – MAY 2022

Provided Tier 1 technical support and hands-on **end-user training** for staff and students, including configuring network settings, setting up conference sessions, and training users on business applications.

Distributor Manager | SELCO Enterprise Ltd – Franchise Partner of Airtel UG

AUGUST 2020 – JUNE 2021

Managed one of the company's branches with over ten workers reporting directly to me as we worked together to achieve targets that were set by Airtel UG. Different key performance indicators were used to measure and evaluate our performance. I was in charge of preparing daily, weekly, and monthly reports on our progress towards hitting the set targets as well as ensuring that accounts were balanced before closing the day.

Consultant / Teaching Assistant | Uganda Martyrs University

January 2020 – August 2020

- Contributed to the development of an institutional **Internship Portal** system, which focused on redesigning the mechanism for monitoring student activity (moving from manual logbooks to an electronic tracking tool).
- Taught Web Authoring and Programming Methodology to students, establishing a strong background in educational technology delivery.

ICT Teacher | St. Francis High School Namagoma

February 2019 – May 2020

Taught ***Computer Studies*** and ***Subsidiary Information & Communication Technology*** to *Ordinary* and *Advanced (O & A) Level students* respectively, conducting both theoretical and practical lessons while preparing the students to sit for their ***National Examinations.***

ICT Teacher | St. Bernard's Secondary School Mannya

January 2014 – august 2017

Taught ***Computer Studies*** and ***Subsidiary Information & Communication Technology*** to *Ordinary* and *Advanced (O & A) Level students* respectively, conducting both theoretical and practical lessons while preparing the students to sit for the ***National Examinations.***

Additionally, I was a ***Head of Department*** for 2 years while also working on the school's ***Results Management System.***

SKILLS

- **Expertise Areas:** Software Architecture, Design Patterns, Data Structures & Algorithms, and Distributed Systems.
- **Programming Languages: Java (Robust Systems)**, **Python (Data/ML/Scripting)**, **C/C++ (Low-Level Systems/Efficiency)**, Kotlin, JavaScript, VB.Net, PHP.
- **Frameworks & Back-End:** Node, Express Flask, and React.
- **Database Technologies:** PostgreSQL, MongoDB, MySQL, SQLite
- **Development Tools:** Git/GitHub/Versior Control, System Modeling.

HONORS AND AWARDS

- In 2021, I received a US $21,000.00 (87%) tuition scholarship for the Masters' program at Carnegie Mellon University Africa from CIT Dean's Fellowship Fund.
- In 2021, I was selected as one of the 100 participants for the 8-months MTN youth skilling program which was aimed at equipping the youth with practical skills to enable them to provide innovative ICT solutions to solve community problems amidst the evolving digital world, and I was among the 60 participants who graduated from the program.
- In 2019, I emerged as the overall best performing student with a CGPA of 4.88 out of 5.0 from Kyambogo University for its 16th graduation.
- In 2016, I emerged as the best performer for the diploma in computer science and information technology with a CGPA of 4.80 out of 5.0 from Uganda Martyrs University.

CERTIFICATIONS

- **International Certificate of Digital Literacy (ICDL)** May 2021
- **CS50X, Introduction to Computer Science** May 2021
- **Becoming a Software Developer** Dec 2020
- **Java for Android** Dec 2020