

# PRINCE SAMUEL KYEREMANTENG

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## EDUCATION

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### **MPhil. Computer Science**

University of Ghana, Accra, Ghana

CGPA: 3.7/4.0

### **BSc. Computer Science**

University of Ghana, Accra, Ghana

CGPA: 3.45/4.0

**Relevant Coursework:** *Advanced Software Engineering, Data Structures and Algorithms, Programming II, Machine Learning (Python), Artificial Intelligence (Python), Databases (SQL), Research Method*

## RESEARCH EXPERIENCE

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### **Missing Data Imputation Techniques, Challenges, Innovations and Applications: A Review**

Oct. 2024 – Present

*Main Author/Researcher, MPhil. Thesis, University of Ghana*

- Conducted a literature review on missing data imputation techniques, their challenges, innovations and applications.
- Presented paper at a workshop conducted by the Department of Computer Science, University of Ghana for Postgraduates. I got the 3<sup>rd</sup> best paper award.

### **Federated Learning at the Edge: Enhancing Privacy and Efficiency in Distributed AI Systems**

*Graduate Research Assistant/Co-Author, University of Ghana*

Jun-Jul. 2025

- Contributed to this research as a graduate assistance/co-author by conducting a comprehensive literature review on the topic.
- Managed papers and citations using the Mendeley platform.
- Designed architectural diagrams to illustrate concepts such as Federated Learning and various types of Federated Learning.

### **PoAD-Lite: A Lightweight, Activity-Aware Consensus Protocol for Scalable and Energy-Efficient IoT Blockchains**

Jul-Aug. 2025

*Graduate Research Assistant, University of Ghana*

- Contributed to this research as a graduate assistance/co-author by conducting a comprehensive literature review on the topic.
- Managed papers and citations using the Mendeley platform.

## WORK EXPERIENCE

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### **University of Ghana, Department of Computer Science**

Aug. 2023 – Present

*Teaching Assistant / Graduate Assistant*

- Lead tutorial sessions for Advanced Databases, Introduction to Artificial Intelligence, Management Principles in Computing.
- Facilitate lecture sessions and grading assignments and exams for undergraduate students.

### **Bricksy Software Development Company | Software Developer**

Feb. 2024 – Aug. 2024

- Designed and implemented a robust Backend Architecture for the Oysloe Marketplace App.
- Developed efficient REST APIs to handle requests, improving API efficiency by over 20%.
- Implemented WebSocket connections for real-time communication. This led to faster response times and reduced latency.

#### **PKay Software Consultancy | Founder and Lead Consultant** May. 2024 – Present

- Designed and led the implementation of several Softwares for different clients.
- I have been the lead consultant for several clients' projects. the feasibility and the need for management systems.
- Developed an Admissions Management System for Ghana Institute of Management and Public Administration (GIMPA). Client has received and processed over 1000 applications with the system.

### **HACKATHON**

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#### **Nyansapo AI Hackathon** 4 - 6th Oct 2023

- Collaborated with two students to participate in the Nyansapo AI Hackathon.
- Developed and presented a proof-of-concept model for detecting power outages in Ghana.
- We had the 4<sup>th</sup> best presentation out of 17 applicants.

### **VOLUNTEER/LEADERSHIP EXPERIENCE**

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#### **PKay Mentorship Program | Founder and Mentor** Sep. 2024 – Present

*Mentorship | Training | Supervision | Code and Design Review*

- Opened a free mentorship program for young undergraduate girls in technology.
- Mentored at least 20 girls in the fields of UI Design and Software Development.

#### **Global Academy School | Volunteer Pupils Teacher** Sep. 2020 – Dec. 2020

*Pupils Teacher*

- Volunteered to teach ICT in the above basic school located in Oti Region of Ghana.
- Organized extra classes for students. This enabled us to finish the syllabus on time.

#### **Bridge IT | Volunteer IT Trainer** Oct. 2020 – Dec. 2020

*IT Trainer*

- I volunteered to teach ICT literacy in the Biakoye district where I taught over 1000 students from about 20 different schools.
- The program took about 3 months to complete, and it was organized by the District Chief Executive of the District at the time.

### **SKILLS**

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**Technical skills:** Programming and Software Engineering, Data structures and algorithms, System Design, Machine Learning and Artificial Intelligence, Databases.

**Languages:** Python, Django, Flask, FastAPI, HTML/CSS/JS, API, Flutter, LLM and

Agents, Prompt Engineering.