

Emmanuel Opoku-Adjei

Registered General Nurse | Aspiring Nanoscientist

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Location: Greensboro, North Carolina, USA.

OBJECTIVE

Aspiring Nanoscientist with a solid background in healthcare and nursing, passionate about integrating advanced technology into healthcare solutions. Aiming to leverage studies in Nanoscience to develop innovative applications that improve patient outcomes, enhance diagnostic accuracy, and optimize healthcare delivery. Committed to contributing to the advancement of nanoscience through research, development, and implementation of cutting-edge solutions at the intersection of health and science.

EDUCATION

Master of Science (MS) Nanoscience

University of North Carolina at Greensboro, North Carolina, USA

- August 2025 - August 2027

Bachelor of Science (B.Sc.) in Nursing

Valley View University, Accra, Ghana

- August 2017 - August 2022
- **Honors & Awards:** Valedictorian, Best Graduating Nursing Student, Vice-Chancellor's List, Dean's List

CURRENT STUDIES

- **Udemy Courses:** C Programming, JavaScript, Python, Web Development, Data Science, and Machine Learning

KEY SKILLS & TECHNOLOGIES

- **Programming Languages:** C, JavaScript, Python
- **Web Development:** HTML, CSS, JavaScript, React
- **Database Management:** MySQL
- **Tools & Technologies:** Git, GitHub, Bash, EHR Systems
- **Healthcare Expertise:** Patient Care, Health Education, Leadership, Clinical Research

Soft Skills: Communication | Critical Thinking | Teamwork | Problem-Solving | Time Management | Adaptability | Leadership

LABORATORY & RESEARCH TECHNIQUES

- Cell and tissue culture, aseptic techniques, and media preparation
- Microbial assays and viability testing
- Conducting assays for nanoparticle-cell interaction and toxicity studies.
- Microscopy (optical and fluorescence) and spectroscopic analysis
- Nanomaterial synthesis and surface characterization (introductory level)
- Experimental design and data analysis using Python, Excel, and SPSS

ANALYTICAL & INSTRUMENTATION SKILLS

- UV-Vis and fluorescence spectroscopy - exposure
- Scanning electron microscopy (SEM) – exposure
- Centrifuges and micropipetting systems
- Laminar flow hood and biosafety cabinet use
- Basic nanoparticle synthesis and characterization - exposure

RELEVANT PROJECTS

Projects:

- [HealthYou Web App](#): Developed a comprehensive health management application using HTML, CSS, and JavaScript, focusing on user-friendly interfaces and efficient data handling.
- [Gulf Consolidated](#): Collaborated on building a corporate website with advanced features for client interaction and information dissemination.
- [Ticktask](#): Developed a task manager web app using React and Firebase for managing tasks, prioritizing, and planning activities.

Portfolio:

Github Profile - <https://github.com/Chiefopoku>

PROFESSIONAL EXPERIENCE

Registered General Nurse

FOCOS Orthopedic Hospital, Accra | July 2024 – August 2025

- Leverage EHR systems for accurate patient data management, care planning, and documentation.
- Participate in quality improvement initiatives to enhance patient safety and outcomes.
- Provide specialized orthopedic nursing care, ensuring adherence to best practices.

Teaching & Research Assistant

Valley View University | September 2022 – Present

- Assist faculty with research projects, data analysis, and manuscript preparation.
- Prepare academic materials for conferences and seminars.
- Offer tutoring to undergraduate nursing students in research methods and clinical competencies.

Registered General Nurse

Shai Osudoku District Hospital, Accra | January 2023 – January 2024

- Conducted patient assessments, administered medications, and educated patients and families.

- Collaborated with interdisciplinary teams for discharge planning and post-discharge follow-up.
- Maintained thorough patient records using EHR systems.

Student Nurse Intern

- **Korle Bu Teaching Hospital (Feb 2021 – Apr 2021):**
Assisted with direct patient care, including vital sign monitoring, medication administration, and basic wound dressing under RN supervision. Demonstrated effective communication with patients and families to ensure understanding of care plans.
- **Pantang Psychiatric Hospital (Dec 2020 – Jan 2021):**
Supported community mental health initiatives, contributed to patient counseling sessions, and assisted with psychotropic medication management. Demonstrated empathy and rapport-building to foster a therapeutic environment.
- **Greater Accra Regional Hospital (Oct 2019 – Dec 2019):**
Handled patient triage, admissions, and discharges in a busy clinical setting. Maintained thorough documentation and collaborated with interdisciplinary teams to deliver holistic patient care.
- **Komfo Anokye Teaching Hospital (Jun 2019 – Jul 2019):**
Facilitated smooth patient flow by coordinating transport between departments and prioritizing urgent cases. Assisted with minor procedures and ensured infection control standards were upheld at all times.

- **37 Military Hospital (Feb 2019 – May 2019):**
Participated in patient triage and discharge planning, focusing on patient education about follow-up and preventive measures. Provided hands-on assistance during emergency situations, adhering to strict protocols.
- **St. Dominic's Hospital, Akwatia (May 2018 – Jul 2018):**
Assisted with patient triage and admissions, performed routine tasks like catheter care and wound dressing, and maintained accurate patient charts. Supported health promotion by educating patients on preventive measures and lifestyle modifications.

RESEARCH & PUBLICATIONS

- *Prioritizing Care and Addressing Distinct Needs of Older Adults with Disabilities in Ghana Amidst Challenges*
- *Supervisory Challenges, financial Struggles, and living conditions of Newly Qualified Nurses during Clinical Rotation in Ghana. (In Review)*
- *Public perception on the quality of nursing education in private nursing institutions” (Not yet published)*
- *Decision-Making Hesitancy and Attitudes Towards HPV Vaccination for Boys Among Fathers in Ghana” (In Review)*

RESEARCH INTERESTS

- Bio-nanoscience and infection control
- Nanomaterials for antimicrobial and antifungal activities
- Biosensors and diagnostic nanodevices

- Surface chemistry and microbial adhesion mechanisms
- Translational nanomedicine and healthcare innovation
- Microfluidic systems for biomedical assays
- Bioinformatics and Machine Learning for Biological Data Analysis

CONFERENCES

- Leadership Conference, Valley View University (2020 - 2023)
- Research Conference, Valley View University (2022-2024)

HONORS & MEMBERSHIPS

- Valedictorian (2022), Valley View University
- Best Graduating Nursing Student (2022)
- Vice Chancellor's List & Dean's List
- Certificate in Leadership Training
- Ghana Registered Nurses and Midwives Association (GRNMA)
- ACQUIRE Quality Improvement Leadership Basic Certificate
- Healthcare Digitalization Impact Training Certificate

COMMUNITY & LEADERSHIP

- **Health Screening & Outreach (2017–Present):** Organized and conducted screenings, providing basic medical care and education in underserved communities.

- **Student Representative Council Executive:** Led student-focused initiatives and academic programs.
- **Cadet Bandsmen:** Developed teamwork and discipline through musical performances (Violin, Keyboard, Guitar, Saxophone, etc.).

REFERENCES

Prof. Dennis LaJeunesse, PhD.

Professor, Nanoscience, UNCG

- Phone: (336)-285-2866
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Prof. Stella Appiah (Mrs), PhD, RN, FWACN, FGCNM

Associate Professor, AAMUSTED, Kumasi, Ghana

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