

Joshua Agyekum - Educational Technology Developer

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Professional Summary

Educational Technology Developer with M.Ed. in Education Technology and 5+ years developing digital learning solutions. Specialized in Learning Management Systems (LMS), educational software development, and user-centered design for learning platforms. Proven expertise in STEM education technology, multilingual learning environments, and data-driven educational analytics.

Core Competencies

EdTech Development

Learning Management Systems (LMS) | User Experience (UX) design | SCORM compliance and API integration | WCAG accessibility compliance for inclusive design

DevOps

AWS Services (EC2, S3, CloudWatch) | Docker and Kubernetes | Terraform for Infrastructure as Code | CI/CD Pipelines with GitHub Actions

Development

Backend: Python/Django, Java, Node.js, FastAPI, RESTful APIs | Frontend: React.js, TypeScript, HTML/CSS, JavaScript | Database: PostgreSQL, MySQL, MongoDB | Version Control: Git/GitHub

Learning Analytics

R Programming | Python Data Science (Pandas, NumPy, Scikit-learn) | SPSS | Power BI

Professional Experience

- **EdTech Infrastructure | JOMACS Academy (Canada) | Jan 2024 – Present**
 - Automated educational platform using Docker and Kubernetes for scalability
 - Developed CI/CD workflows for educational content deliveries using GitHub Actions
- **EdTech (Intern) | First Talk EduCare, Changxing, China | Mar 2021 – Apr 2022**
 - Implemented digital phonics learning system using Jolly Phonics methodology

- Designed interactive educational content and age-appropriate learning interfaces
- **STEM Platform (Voluntary) | ALO7 Education, China | Jan 2020 – Feb 2021**
- Developed interactive learning modules using digitoools and virtual classroom platforms
- Built adaptive learning systems that increased student engagement by 40%
- **Maths & Science Tutor | Brainhill International, Ghana | Aug 2018 – Sep 2019**
- Best Teacher Award (2019) for excellence in mathematics and science education
- Developed engaging lesson plans and assessment to improve student learning outcomes
- **Grocery Associate (Part-time) | Wolt Market, Oslo | Apr 2024 – Present**
- Norwegian workplace experience for cultural integration and language proficiency
- Operational efficiency and process optimization in multicultural environment

Key EdTech Projects

- **NorskLær - Norwegian Language Platform (Python, React.js, TensorFlow AI)**
- Features: Adaptive learning, speech recognition, cultural context
- Impact: Serves Norway's immigrant integration market
- **EduAnalytics - Learning Analytics Dashboard (Python, Power BI visualization)**
- Features: Predictive modeling, engagement analysis, ROI tracking
- Impact: 30% reduction in student dropout rates
- **CloudClassroom - Scalable LMS (Kubernetes, Docker, Node.js microservices)**
- Features: SCORM compliance, auto-scaling, multi-tenant
- Impact: 60% cost reduction, 10,000+ concurrent users
- **STEM - Science Learning Platform (Three.js 3D visualization, React)**
- Features: Virtual experiments, gamification, multilingual support
- Impact: 75% increase in STEM engagement

Education

- **M.Ed. – Education Technology | Huzhou University, China | Sep 2019 – Jul 2022**

- Specialization: AI in education, learning analytics, instructional design. [Verification](#)

- **MSc – International Relations | NMBU, Norway | Aug 2022 – Jun 2024**

- Focus: R Programming, research methods, international perspectives

- **B.Ed. – Education (1st Class) University of Education | Sep 2014 – Jul 2018**

- Research: Use of manipulative tools to improve basic arithmetic

Professional Certifications

Technical Development Certifications [View Profile](#)

Certified Python Developer | Certified Data Scientist | Certified SQL Developer | Certified Backend Developer | Certified Git Practitioner

Cloud & Data Analytics Certifications

AWS Cloud Essentials, AWS Educate Introduction to Cloud 101 | Power BI Essential | Training 2024 | Data Analysis with Python (Coursera) | ChatGPT Prompt Engineering (DeepLearning.AI)

Project Management

Project Management Foundations | Atlassian Agile Project Management | ServiceNow IT Leadership Professional | Operations Management Professional

Language Proficiency

Norwegian Language Proficiency: B1-B2 (Official) - [Verify](#) | TEFL Certificate | HSK Level 3: Mandarin Chinese (239/300) | English Proficiency: Academic level

Teaching Qualifications

- National Teaching Council (NTC) Certificate - Ghana (2018)

- ESL methodology, classroom management, learner diversity

Research & Publications

- Natural Science & Real Life Learning - Lead Author | [Link](#)
- STEAM Education Model - Sole Author | [Link](#)
- Classroom Management & Student Well-being - Co-Author | [Link](#)

Technical Skills & Platforms

Learning Management Systems

- Moodle | Canvas | Google Classroom | Microsoft Teams for Education

Content Creation & Authoring Tools

- Articulate Storyline | Adobe Captivate | H5P | Canva for Education

Data Analysis & Research Tools

- R Programming | SPSS | Microsoft Excel | Google Analytics

Assessment & Evaluation Platforms

- Kahoot | Quizlet | Mentimeter | Socrative

Multimedia & Communication Tools

- Zoom/Microsoft Teams | Camtasia | OBS Studio | Padlet