

CHIMZURUOKE OKAFOR

Software Engineer (AI/ML)

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Guildford, UK

SUMMARY

Passionate Software Engineer with a deep-rooted background in computer science, mathematics, and machine learning, I am proficient in various programming languages and have a passion for AI research and development. My problem-solving skills have led to a track record of developing successful AI-driven applications in LLM and Computer Vision. I bring to a team a huge leadership ability to own product development, drive innovation, and excel in dynamic, technology-forward environments.

PROFESSIONAL EXPERIENCE

Software Engineer (AI/ML)

Greach 04/2022 - 07/2023 Chicago, US

- Co-launched a ride-hailing application with over 3K downloads on the App Store and Play Store, utilizing React for frontend and Python, Node.js for backend.
- Implemented a Service-Oriented Architecture with Cloud Native Tools like RabbitMQ in a containerized event-driven framework, enabling scalable microservice deployment and seamless service communication.
- Developed a sophisticated matching algorithm using Data Structures and Algorithms, enhancing ride-hailing efficiency with 90% accuracy in pairing drivers and riders.
- Managed a comprehensive data framework using Apriori ML algorithm, leading to a 25% improvement in recommendation systems.
- Delivered configuration management tools utilizing custom shell scripts to track server settings for performance testing which saved 25% of initial machine setup and system uptime by 60%.

Machine Learning Research Engineer (NLP, LLM)

University of Surrey, IT Services 05/2023 - 09/2023 Guildford, UK

- Researched and developed an AI chatbot written Python and C#, transforming the university's student communication system and enhancing integration with platforms like WhatsApp and Teams.
- Optimized vector embeddings in LLMs by employing modular machine learning algorithms, improving the chatbot's context awareness and accuracy, which reduced cloud processing requirements and server costs by 40%.
- Implemented robust privacy and security measures in the AI chatbot project, ensuring compliance with data protection standards and safeguarding student information.
- Simplified complex AI concepts for non-tech staff, enhancing team capabilities and collaboration.
- Contributed to a 40% reduction in student helpline queries, significantly advancing digital engagement across the campus.

Software Engineer (Computer Vision)

Smart Meets 01/2021 - 12/2021 Lagos, NG

- Led the development of an advanced ML facial recognition model for high-profile tech events, enhancing user verification and achieving prediction accuracy of over 90%.
- Designed and developed a new rule-based machine translation engine, which enhanced image quality and processing time by 60%.
- Developed a model refinement pipeline using data-driven methodologies and DevOps/CI/CD tools like Terraform, Docker, Kubernetes, GitLab, and AWS, achieving a 30% increase in model accuracy and reliability.
- Engineered a scalable, high-performance REST API in Python, handling large-scale data and traffic demands efficiently.
- Integrated QA and testing automation utilizing tools like Selenium, PyTest in the model development, enhancing accuracy and system reliability.
- Successfully deployed the facial recognition system for over 10 events with each over 20K attendees, resulting in a revenue of about ₦50M.

EDUCATION

Master of Science, Artificial Intelligence

University of Surrey 02/2023 - Present Guildford, UK GPA **80.5** / 100

- Completed core Modules such as Introduction to Transformers (NLP), Machine Learning Fundamentals, Ethics of AI, AI and AI Programming and Human-AI Teaming

Bachelor of Engineering, Electrical and Electronics Engineering

Federal University of Technology Owerri GPA **3.51** / 4.0

09/2014 - 11/2019 Owerri, NG

- Completed core Modules such as Engineering Mathematics, Computer Networking, Statistics Modelling, Computer Programming, Information Theory and System Design

ACHIEVEMENTS



Spearheaded a popular 1.3K star GitHub Machine Learning project

The project has amassed over 1.3k stars on GitHub, and it is in the top 10 most popular ML projects on GitHub in 2022.



Developed a Successful Commercial SaaS Application for Proposal Generation

This AI SaaS application has generated ~£2K in revenue and attracted over 100 active user subscriptions.



Major Open source Contributor to Popular ML Frameworks

Open source contributor to TensorFlow, PyTorch & Ivy



Innovative Research in Self-Supervised Learning for 3D Imagery

Pioneered a model in SSL during my thesis for 3D imagery, showcasing its efficacy with a paper pending publication at CVSSP, ICCV.

SKILLS

Tools

Java C++/C# Python Selenium/PyTest
Typescript/Javascript React REST API
mySQL noSQL gRPC Flutter (Dart)

Machine Learning

TensorFlow Pytorch Scikit Learn Keras
Transformers NLP Generative AI MLOps

DevOps/Cloud

Terraform AWS Azure Docker SOA
Message Queue Kubernetes CI/CD Gitlab
GCP Computer Networking Microservice

STRENGTHS



Problem Solving Skills

Huge knowledge base and attention to detail.



Communication and Collaborative Skills

Excel at clarifying complex technological concepts, ensuring non-technical personnel understand and apply advanced technologies, thus driving collaborative innovation.



Leadership Skills

Exemplify ownership of product initiatives and strategically guide projects and teams with an innovative and visionary approach.