

Ryan Mutiga Gichuru

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EDUCATION

University of Northampton

Northampton, UK

Bachelor of Arts in Artificial Intelligence and Data Science

Expected May 2026

- **Relevant Coursework:** Introduction to Artificial Intelligence, Data Structures and Algorithms, Cloud Computing and Big Data, Relational Databases, Mathematics for Computer Science, Machine Learning, Statistics

Generative AI Bootcamp, GetSeen Ventures

Remote

6-week intensive program on Generative AI technologies

Jul. 2024 – Sep. 2024

- Focused on LLMs, Retrieval-Augmented Generation (RAG), and building production-level AI applications
- Developed practical skills in AI solution development and collaborative project execution

AI and GPT Bootcamp, Encode Club

Remote

8-week program on AI applications and development

Aug. 2024 – Oct. 2024

- Gained proficiency in AI techniques for NLP, image recognition, and content generation
- Built and deployed AI-powered applications using cloud services and local hardware

EXPERIENCE

Founding AI Engineer

Jun. 2024 – Present

BARBAH Games (Startup)

Remote

- Developing AI solutions development for gaming applications
- Leading initiatives in Compute, Digital Twins, and Generative AI UI/UX
- Collaborating with cross-functional teams, improving communication and project management skills

Research Assistant

Nov. 2023 – Jul. 2024

University of Northampton

Northampton, UK

- Conducted data analysis and visualization using Python libraries (Pandas, NumPy, Seaborn, Matplotlib)
- Delivered AI literacy workshops within the university, presenting at three conferences on AI in education
- Engaged in prompt engineering, prompt versioning and fine-tuning of a custom GPT model

Student Ambassador

Jun. 2024 – Present

Intel Corporation

Remote

- Promoting learning and collaboration within developer communities
- Enhancing skills in oneAPI and exploring cutting-edge Intel hardware and software
- Organizing and delivering hands-on training sessions on AI and HPC

Campus Ambassador

May 2024 – Present

Facia AI

London, UK

- Spearheading awareness campaigns for Facia's liveness detection and facial recognition solutions
- Creating engaging content to showcase Facia's impact against cybercrime
- Representing the company at various campus events and initiatives

PROJECTS

RAG-Based Chatbot for BARBAH Games Website | *Python, NLP, RAG*

Jul. 2024 – Present

- Designed and developed a Retrieval-Augmented Generation (RAG)-based chatbot to enhance user engagement and provide real-time assistance on the BARBAH Games website.
- Implemented end-to-end AI solution, including data ingestion, preprocessing, model finetuning, and deployment pipelines, ensuring scalability and reliability.
- Conducted rigorous testing and optimization to achieve low latency and high response accuracy, enhancing overall user experience.
- Monitored chatbot performance post-deployment and implemented continuous improvement strategies based on user feedback and interaction analytics.

AI-Powered Chatbot for Independent Learning | *Python, NLP, LLM*

Jan. 2024 – Present

- Developing a scalable chatbot using NLP and LLM architectures for personalized learning.
- Conducting data analysis and stakeholder engagement to align chatbot features with user needs.
- Implementing ethical data handling practices and adherence to data protection regulations at the University.

Warehouse Optimization with AI | *Python, Machine Learning, Data Analysis* May 2024 – Jul. 2024

- Collaborated with GXO on AI projects to improve operational efficiency in warehouses.
- Utilized k-means clustering and decision tree algorithms for data analysis and trend identification.
- Implemented AI-driven optimization models to evaluate and recommend AI systems for logistics.

Study Smart: AI Literacy Initiative | *Data Analysis, GPT, Python* Nov. 2023 – Jul. 2024

- Conducted data analysis to enhance AI literacy among staff and students.
- Fine-tuned custom GPT models for data analysis, improving output relevance.
- Collaborated with a team to present findings at educational conferences.

TECHNICAL SKILLS

Languages: Python, C++, JavaScript , HTML/CSS, SQL, WSL

Frameworks & Libraries: NumPy, Pandas, Scikit-Learn, TensorFlow, PyTorch, React

Tools & Technologies: Git, Github, CUDA, Linux(Ubuntu), BigQuery, Oracle, Docker, HPC clusters

Areas of Expertise: Machine Learning, Data Analysis, LLM Finetuning and RAG Applications, AI Systems Design

ACHIEVEMENTS AND INVOLVEMENT

President, UON AI Society Sep. 2023 – Present

- Leading the society to foster innovation and collaboration in AI
- Expanded membership by 60% through strategic initiatives
- Organized workshops, hackathons, and speaker sessions

Former Treasurer, UON AI Society Sep. 2023 – Jun. 2024

- Increased society's budget by 52%, enabling key projects and events
- Managed financial planning and fundraising activities

Student Careers Coach, University of Northampton Sep. 2024 – Present

- Provide career support on CV writing and interview preparation
- Conduct career coaching sessions, helping students recognize their strengths and utilize them

Volunteer Store Assistant, Barnardo's Charity Mar. 2023 – Aug. 2023

- Managed store operations and merchandising for charitable causes
- Handled transactions and provided customer service

Certifications

- Kaggle Certificate in Pandas: Completed advanced data manipulation course
- **Disclosure and Barring Service (DBS) Check** Oct. 2024
 - * Completed Gateway to Safeguarding certified by Thirtyone:eight

PRESENTATIONS

“Study Smart: Staff and Students Co-constructing AI Literacy at UON”

Presented at the Learning and Teaching Conference, University of Northampton, June 2024.

“AI for Independent Learning: URBAN Project”

Presented at the Learning and Teaching Conference, University of Northampton, June 2024.

“Study Smart Project Findings”

Presented at Merged Futures VI Conference, University of Northampton, June 2024.