Michael Agbo

- Coventry CV5 6GH • 07879132448 • apochibishop@gmail.com

- https://www.linkedin.com/in/michael-a-agbo

Career Profile

Graduate Mechanical Engineer (BEng) with a strong focus on intelligent automation systems and hardware-software integration. Passionate about working in robotics and automation within real-world manufacturing environments. Experienced in applying engineering principles to system design, automation feasibility, and simulation modelling using tools RobotStudio. Proven ability to work independently and collaboratively in multidisciplinary teams, with a strong foundation in control systems, and emerging smart manufacturing technologies.

Education

Coventry University
MSc Control Automation and Artificial intelligence | September 2024 – September 2025
Key Modules: Robotics, Programming and simulation for control, Linear Control system Analysis and Design, Artificial Neural Networks, system modelling and Identification, Data acquisition and embedded Control.

BEng Mechanical Engineering | January 2021 – April 2024
Key modules: Computational Thermofluids, Analytical Modelling, Electrical science, Design and sustainability, Manufacturing Technology and Materials, Stress and Dynamic Analysis, Instrumentation and control.

Employability modules: Professional Development and project planning and Mechanical product innovation, Leading Strategic Change through Creativity and Innovation.

University Projects

Postgraduate Control Dissertation Project: Development of AI classification algorithms for industrial and healthcare applications using transfer learning and hyperparameter optimisation. | May 2025 – August 2025
Developing and evaluating an AI-based vision system for part and product classification in manufacturing using deep learning and high-performance computing. The system is benchmarked against commercial tools such as Cognex VisionPro Deep Learning and traditional machine vision solutions. It further explores integration with robotic arms and grippers to assess the system's potential for enhancing automation and operational efficiency on the factory floor.

Final undergraduate Project: Motion Planning and Control for Industrial Manipulators | January 2024 – April 2024
Worked on the regulation problem of an IRB 120 industrial manipulator in MATLAB by using the robot parameters to build the forward to inverse kinematics of the manipulator. Achieved the movement of the manipulator from a known point A to a desired point B.

Experimental Modal Analysis of a Structural Component with Model Validation | January 2024 – April 2024
This project required the use of MATLAB to conduct Experimental modal analysis on a cube Prism structure and obtain results, then created Mathematical Abaqus models to obtain results and imported the data to MATLAB to perform Model Validation through investigative discrepancies between the experiment and mathematical model using model correlation methods.

Professional Experience

Centre for Clean Growth & Future Mobility – Coventry   04/2024 – 06/2024
Design Research Intern
Project: CAD model design of a knee Joint
- Data collection for dimensioning of the model
- Review and analysis of collected data to inform design decisions on the model
- Suggest design changes to concept model with focus on the ability to manufacture the part.
- Drafting the knee joint CAD model in CATIA v5.

Institute of Advanced Manufacturing and Engineering – Coventry   07/2024 – 09/2024
Design, Metrology and Research Intern
Project: Developing a digital thread between Product Technical Specification and Metrology inspection
- Define Component tolerances and assembly process in SolidWorks.
- Use of PolyWorks software to align 3D point cloud data with 3D printed CAD parts and assess dimensions and measurement data.
- Interpret data to inform engineering decisions and make improvements.

Skills

- Technical reporting and visualization
- Project management
- Communication
- RobotStudio
- MATLAB, Python, Simulink, Stateflow, VISSIM and Simscape.
- Computer Aided engineering/design - Catia V5, SolidWorks, PolyWorks, Siemens NX, Powermill, Ansys, Abaqus, and Granta Edupack.

Hobbies and societies

- Football, Table tennis, Travelling and Reading.
- IMechE student Member, Manufacturing society member, Table tennis society and crafting society.