

# Daniel Chihugam Okeah

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## BIOMEDICAL ENGINEER

A dedicated Biomedical Engineer with expertise in medical device testing and healthcare IT systems integration. Combines strong technical foundations in Python, MATLAB, and medical device protocols with hands-on experience in laboratory setup and equipment validation at Olympus Europe. Proficient in optimizing training equipment workflows and enhancing knowledge management systems through web development. Particularly skilled in medical device complaint resolution and compliance reporting. Committed to leveraging technical expertise in signal processing, medical imaging, and data analysis to advance healthcare technology and improve patient outcomes. Known for collaborative problem-solving abilities and proactive approach to cross-functional teamwork in technical healthcare environments.

## SKILLS

### Regulatory Knowledge:

- QMS
- ISO 13485
- US FDA( CFR 820 etc.)
- EU MDR

### Technical Skills:

- Programming: Python, , JavaScript, HTML & CSS, MATLAB, C#
- Data Analysis & ML: PyTorch, NumPy, TensorFlow
- Engineering Software: SAP Logon, AutoCAD, IBM Notes
- Tools: Microsoft Office, Trello, Github

### Soft Skills:

- Time Management, Communication, Leadership, Team Player, Organizational Abilities, Problem Solving

### Languages:

- English: Native (C2)
- German: Intermediate (C1)

## EXPERIENCE

### Support Engineer – 2nd Level SI Support:

Olympus Europe SE & Co. KG

May 2023 - Present, Hamburg, Germany

- Contributed to the optimization of training equipment management, including restructuring and inventory organization across warehouse and hands-on training facilities.
- Supported the establishment and enhancement of a test laboratory, focusing on the setup, wiring, and testing of new products.
- Conducted comprehensive inventory testing to ensure equipment accuracy and functionality within the laboratory environment.
- Played a key role in revamping the device knowledge database by employing HTML, CSS & JavaScript for improved accessibility and usability.
- Managed device complaints by coordinating resolutions and generating detailed reports to ensure compliance with company standards.

### Service Engineer – Technical Service Product Management:

Olympus Europe SE & Co. KG

May 2023 - Present, Hamburg, Germany

- Regular updates to Olympus products spare parts lists utilized by Field service engineers and technicians.
- Service documentation and management of data modification notices(DMNs).
- Filing of technical information sheets, export control documents and service bulletins.
- Worked with SAP, IBM notes and internal Document Archives for setup of spare parts and DMNs.

### Research Assistant – CardioSecur:

Personal MedSystems

March 2024 – December 2024, Hamburg, Germany

- Researched suitable AI techniques with straightforward implementations for the denoising of ECG signals.
- Optimization and enhancement of ECG signals recorded through the company application software.

### Biomedical Systems Consultant – Orbus Consulting:

Orbus Healthcare

January 2022 – December 2022, Hamburg, Germany

- Leveraged technical background in biomedical engineering to provide in-depth product education and troubleshooting support to physicians and clinical staff.
- Collaborated with cross-functional teams to gather customer feedback and contribute to product improvement initiatives.
- Conducted product demonstrations and training sessions, ensuring healthcare professionals could maximize device effectiveness and patient outcomes.
- Maintained comprehensive knowledge of competitor products and industry trends to effectively position company offerings.

## PROJECTS

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### **My Personal Portfolio**

<https://danielokeah.netlify.app/>

Designed and implemented a comprehensive, responsive, personal portfolio website using HTML, CSS & JavaScript for a visually and appealing frontend. This showcases my web development skills and problem solving skills.

### **ECG Signal Denoising and Enhancement Using AI Techniques**

Researched and implemented various AI techniques for denoising and filtration of ECG signals. Based off convolutional networks and autoencoders, this project focused on effectively removing noise without affecting important features.

### **COVID-19 Restriction Control Project**

This project focused on simulating the COVID-19 pandemic and evaluating potential lockdown scenarios when working within strict restrictions to a system. This project was coded using MATLAB, Simulink, MPC controller and Advanced Control Methods.

### **Advanced Filtration Techniques for ECG Signals**

This is a research project focused on utilizing the best advanced filtration techniques for ECG signals. This was mainly performed using MATLAB and existing filtration software with the MATLAB package.

### **Machine Learning with Hypotrochoids and Neural Networks**

A python based project focused mainly on image processing techniques commonly used in Biomedicine and the Medical Technology space. Integrates convoluted neural networks and artificial intelligence to achieve high accuracy in image detection and processing.

### **Knowledge Database Reconstruction**

Transfer of information (official company product information) and reconstruction of a Knowledge Database. This was designed and implemented using HTML and CSS, and JavaScript.

## EDUCATION

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### **Master's Degree in Biomedical Engineering**

HAW University of Applied Sciences • Hamburg, Germany  
March 2023 - Present

### **Preparatory Master's Degree Course**

HAW University of Applied Sciences • Hamburg, Germany  
September 2022 - January 2023

### **Bachelor's Degree in Biomedical Engineering, Honors**

Kharkiv National University of Radio Electronics, Kharkiv, Ukraine  
September 2018 - June 2022  
**GPA: 4.0**