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| Chibuike Okpaluba  I am a pro-active, confident and passionate Graduate Mechatronics Engineer with a strong understanding of robot design, automation, computer vision, deep learning and the internet of things (IoT).  Having several years of continuous experiences from various kinds of projects and a recently achieved Master’s degree in Mechatronics, I offer a comprehensive set of technical skills complemented with good communication, project management and team working skills, always striving to exceed expectations in any role undertaken.  Please visit [www.chibuikepraise.com](https://www.chibuikepraise.com/) to view my most updated portfolio. | London,  United Kingdom  **+44 (0) 7955 224137**  **chibuikepraise@gmail.com**  [**www.chibuikepraise.com**](https://www.chibuikepraise.com/) |
| EXPERIENCECrypto Quantique, London — *Software Engineering Intern*JUNE 2019 - PRESENT [Crypto Quantique](https://www.cryptoquantique.com/about) is a modern data security company based in London, who have developed the world's first [Quantum Driven Physically Unclonable Function](https://en.wikipedia.org/wiki/Quantum_readout) on silicon which allows highly scalable and seamless end-to-end security for connected devices. As a part of the cryptographic team, I manage the software used on the demonstrators and quality assure key parts of the software services provided. Freelance, London — *Robotics and Mechatronics Engineer*MAY 2019 - PRESENT I work closely with a few individuals, a startup and a design studio, providing hardware and software solutions specific to their requirements. This mostly involves testing, designing, demonstrating and implementing product ideas. Richer Education, London — *Robotics, Mechatronics and Coding Tutor*SEPTEMBER 2018 - PRESENT I work with other tutors at [Richer Education](https://www.richereducation.co.uk/), to teach children (ages 9-14) about the basics of programming, through several creative mini-mechatronics projects and or kits. These sessions/tutorials/camps are designed to promote the interest of STEM-related subjects with children. Brightsparks, London — *Events Support Staff*JUNE 2017 - PRESENT I often work in a team with other event support staff to provide customers with a fabulous service experience at several prestigious locations around the UK including Ascot, Battersea, Chelsea, Emirates, Twickenham and Wembley. EDUCATIONMiddlesex University, London — *MEng Mechatronics*OCTOBER 2015 - JULY 2019 Key Modules   * CAD/CAM Design, Test and Manufacturing Techniques * Advanced Mechatronics and Robotics (ROS, ABB, UR5, etc.) * Factory Automation (PLC programming, pneumatics, etc.) * Embedded Systems with Microcontrollers and SBCs * Control Systems (e.g. PID systems, etc.)  The British Council, Lagos — *CIE AS & A Level*MAY 2015 - JULY 2015 Components   * Computer Science * Mathematics * Physics  PROJECTSEurobot 2019 Eurobot is an international robotics competition, in which skilled enthusiast build robots to autonomously complete a set of tasks within a given time. This competition takes place across several countries in Europe (e.g. England, Germany and Serbia) with the yearly finals in France.  I was tasked with interfacing the low-level hardware components with ROS, this includes the robot’s end-effectors and drivetrain which uses Maxon’s EPOS4 controllers.  This project involved the following tools/skills   * ROS * C++, Python and JavaScript * Eagle CAD * Solidworks  ArtBoT — an artist from the future The aim of this project was to design a pen-holding end-effector for the ABB IRB 120 and to set up an interactive system to showcase some of the key features of the end-effector to the public.  I designed an end-effector for the ABB IRB 120 which used a self-centring chuck mechanism to hold a pen with the right proportions, To demonstrate the features of the end-effector, I designed a system that allowed users to have their portraits automatically processed and drawn by the robot using the end-effector.  This project involved the following tools/skills   * ROS, MoveIt * C++, Python and JavaScript * OpenCV * Solidworks * Robotstudio  Adaptive Deep Brain Stimulation Demonstrating the regulation of deep brain stimulation using real-time feedback from external sensors. Patients with neurodegenerative disorders often suffer from movement disorders such as dystonia, tremor and Parkinson’s. Deep brain stimulation is often used to treat the symptoms caused; by changing some of the electrical signals in the brain using electrodes to provide targeted high-frequency stimulation.  I was tasked with designing a waist mounter sensor node to measure posture and balance using an inertial measuring unit. The information gathered by this sensor node will be used to determine the user’s activity (e.g. walking, running, etc.).  This project involved the following tools/skills   * Embedded C/C++ * The Photon Microcontroller * Signal Analysis using Fast Fourier Transforms and Machine Learning * Python and JavaScript * Eagle CAD * Solidworks  Card Recognition with Baxter [Baxter](https://en.wikipedia.org/wiki/Baxter_(robot)) is a robot manipulator built by Rethink Robotics which is used for simple industrial tasks and research. The goal of this project was to write a program that allowed Baxter to interact with objects in its visual and manipulation workspace using its eye-in-hand camera and a parallel gripper.  I presented a system in which Baxter could accurately detect a card bin with up to four playing cards, using its camera and a few Aruco markers placed on the card bin. I used several deep learning models to recognize the card suits of the cards placed in the bin.  This project involved the following tools/skills   * ROS * Python, Qt5 * Tensorflow * Computer Vision with Machine Learning | SKILLS  * **Programming** — Python, C/C++, LabVIEW, RAPID, Matlab, Java, Arduino, Processing and JavaScript. * **Robotics** — proficient with several robotics frameworks such as ROS, INTERA, MoveIt and Robotstudio. Experience with robot navigation, path planning, 2D SLAM and robots and robot manipulators such as the Turtlebots, IRB120, Baxter, Sawyer and the UR5. * **CAD, Graphics and Video** — proficient with several CAD packages and video/audio editing tools such as Solidworks, Adobe Illustrator, Adobe Premiere and Audacity. * **IT Tools and Frameworks** — proficient with several IT tools, web tools and operating systems such as Android Studio, Django, Flask, Nodejs, PyQt5, Windows, Debian/Ubuntu Linux and Android.  AWARDS **Placed 3rd** at the 2019 British [Eurobot](http://www.eurobot.org/) finals in London.  **Received a Diamond Award** while working as a student learning assistant at Middlesex University London.  **Placed 3rd** at the 2017 Regional [IMechE](https://www.imeche.org/events/challenges/design-challenge) Design Engineering Competition finals in London.  **Participated** in the 2016 British [WorldSkills](https://www.worldskillsuk.org/) Mobile Robotics Competition in Birmingham.  **Received a Bronze Medal** for short put at the 2014 inter-house sports in high school. LANGUAGES English, Igbo and Basic German REFERENCES **Dr Eris Chinellato**  Academic Reference  [e.chinellato@mdx.ac.uk](mailto:e.chinellato@mdx.ac.uk)  **Mrs Simbo Ajayi**  Personal Reference  [s.ajayi@mdx.ac.uk](mailto:s.ajayi@mdx.ac.uk)  **Dr Aleksandar Zivanovic**  Technical Reference  [a.zivanovic@mdx.ac.uk](mailto:a.zivanovic@mdx.ac.uk)  **Dr Vaibhav Gandhi**  Project Reference  [v.gandhi@mdx.ac.uk](mailto:v.gandhi@mdx.ac.uk)  Other references are available upon request. |