

KELVIN GATURUHU CHUI

✉ CHUIKELVIN2@GMAIL.COM

🔗 [HTTPS://GITHUB.COM/CHUIKELVIN](https://github.com/CHUIKELVIN)

🌐 [HTTPS://KELVINCHUI.COM](https://kelvinchui.com)

ABOUT ME

I AM A MECHANICAL ENGINEERING TECHNOLOGIST AND A SEASONED PROGRAMMER WELL-VERSED IN WEB AND MOBILE TECHNOLOGIES, IOT, LOGIC-BASED PROGRAMMING, MECHATRONICS, AND ROBOTICS.

MY EXPERTISE INCLUDES CREATIVE THINKING, PROBLEM-SOLVING, LOGICAL THINKING, AND SYSTEM DESIGN.

I AM EAGER TO CONTRIBUTE TO TEAM SUCCESS THROUGH HARD WORK, ATTENTION TO DETAIL, AND GOOD COMMUNICATION SKILLS OVER AND ABOVE MY PROGRAMMING SKILLS.

WORK EXPERIENCE

NIMDEN ENTERPRISES

OCTOBER 2021 - JANUARY 2022

INDUSTRIAL ATTACHMENT

- I HAD THE OPPORTUNITY TO JOIN NIMDEN ENTERPRISES FOR MY THREE-MONTH INDUSTRIAL ATTACHMENT. NIMDEN ENTERPRISES IS A MANUFACTURING VENTURE THAT DEALS WITH SHEET METAL FORMING PROCESSES.
- I WAS TASKED AS A MACHINE OPERATOR TRAINEE AND HAD THE OPPORTUNITY TO LEARN THE OPERATION AND MAINTENANCE OF THE VARIOUS MACHINES.
- THESE MACHINES INCLUDE A SHEET METAL SHEARING CUTTER, A HYDRAULIC PRESS BRAKE MACHINE FOR BENDING, A ROLLER MACHINE, AN EXPANDED WIRE-MAKING MACHINE, A PUNCHING MACHINE, AND A ROLLER SHUTTER MAKING MACHINE.

INCEPTOR INSTITUTE OF TECHNOLOGY

AUGUST 2022 - PRESENT

SOFTWARE DEVELOPMENT INSTRUCTOR

- TO TEACH, INSTRUCT AND GUIDE STUDENTS OF DIFFERENT AGES AND BACKGROUND ON THE STEPS THEY NEED TO TAKE TO BECOME SOFTWARE DEVELOPERS
- MY FIRST TASK WAS TO COME UP WITH A CURRICULUM AND WORK PLAN ON HOW TO GO ABOUT TEACHING THE VARIOUS LANGUAGES TO THE STUDENTS.
- LANGUAGES TAUGHT INCLUDE HTML, CSS, BOOTSTRAP, PHP, MYSQL, JAVASCRIPT, PYTHON AND DJANGO AND FLUTTER UNDER DIFFERENT PROGRAMMES.
- PROGRAMMES TAUGHT INCLUDE:-
 - WEB DESIGN(HTML,CSS,BOOTSTRAP)
 - WEB AND SOFTWARE(FRONT-END THROUGH WEB DESIGN AND BACKEND THROUGH PHP AND MYSQL)
 - SOFTWARE AND MOBILE APP DEVELOPMENT INTERMEDIATE(WEB AND SOFTWARE AND FLUTTER FOR MOBILE)
 - SOFTWARE AND MOBILE APP DEVELOPMENT ADVANCED(WEB AND SOFTWARE, FLUTTER AND EITHER JAVASCRIPT OR PYTHON)

KELVIN GATURUHU CHUI

✉ CHUIKELVIN2@GMAIL.COM















🔗 [HTTPS://GITHUB.COM/CHUIKELVIN](https://github.com/CHUIKELVIN)

🌐 [HTTPS://KELVINCHUI.COM](https://kelvinchui.com)

EDUCATION, TRAINING AND CERTIFICATIONS

KIAMBU HIGH SCHOOL 2015		KENYA CERTIFICATE OF SECONDARY EDUCATION (K.C.S.E)
EMOBILIS MOBILE TECHNOLOGY TRAINING INSTITUTE 2016		CERTIFICATE IN MOBILE SOFTWARE DEVELOPMENT AND ENTREPRENEURSHIP (MIT)
GEARBOX KENYA 2019 - 2021		CERTIFICATE IN WORKSHOP TECHNOLOGIES, DIGITAL FABRICATION AND HUMAN CENTERED DESIGN
THE TECHNICAL UNIVERSITY OF KENYA 2016 - 2022		BACHELOR OF TECHNOLOGY MECHANICAL ENGINEERING TECHNOLOGY
POWER LEARN PROJECT(PLP) 2022		SOFTWARE DEVELOPMENT PROGRAM

PROGRAMMING LANGUAGES AND TECHNOLOGIES

 GIT	 HTML	 CSS	 C AND C++	 PYTHON	 DJANGO	 MYSQL
 JAVASCRIPT	 NODE JS	 PHP	 REACT NATIVE	 THREE JS	 MONGO DB	 FLUTTER

PERSONAL PROJECTS AND ACCOMPLISHMENTS

MADE A TWO WAY ELECTROMECHANICAL SWITCH FOR PHYSICAL AND WIFI SWITCHING (IOT)

I WIRED A RELAY CONTROLLED BY AN ESSPRESSIF MICROCONTROLLER TO A PHYSICAL SWITCH. THE WIRING WAS DONE IN A TWO WAY CONFIGURATION ENABLING SWITCHING BY EITHER THE RELAY OF PHYSICAL LIGHT SWITCH

MADE AN AUTOMATED CNC EMBROIDERY MODULE FOR OUR FINAL YEAR PROJECT

THROUGH INTENSIVE TEAM EFFORT BY MY PROJECT PARTNER AND WE WERE ABLE TO DESIGN AND MAKE AN EMBROIDERY MODULE THAT CAN BE ATTACHED TO OLD SEWING MACHINES TO ENABLE EMBROIDERY OPERATIONS TO BE PERFORMED WHEN NEEDED. THE MODULE IS DETACHABLE TO ALLOW THE SEWING MACHINE TO PERFORM NORMAL STRAIGHT STICH SEWING OPERATIONS.

IMPLEMENTED A DIGITAL FAN SPEED CONTROLLER USING A 555 TIMER

I TOOK APART AN OLD DESKTOP PC POWER SUPPLY BECAUSE THE COOLING FAN WOULD ALWAYS RUN AT MAXIMUM VELOCITY. I MODIFIED THE FAN'S CIRCUIT ADDING A 555 TIMER TO IMPLEMENT PWM SPEED CONTROL. THE CONTROLLER WAS ADJUSTABLE USING A POTENTIOMETER AND HAD AN ADDITIONAL TEMPERATURE PROBE.

KELVIN GATURUHU CHUI

✉ CHUIKELVIN2@GMAIL.COM

🐙 [HTTPS://GITHUB.COM/CHUIKELVIN](https://github.com/CHUIKELVIN)

🌐 [HTTPS://KELVINCHUI.COM](https://kelvinchui.com)

PERSONAL PROJECTS AND ACCOMPLISHMENTS

MAKING A ROBOTIC GRIPPER THAT MIMICS A HAND

USING A CAMERA FEED, OBJECT RECOGNITION, AND OBJECT TRACKING MACHINE LEARNING MODEL I WAS ABLE TO TRACK MY ARM GET THE POSITIONAL DATA OF MY INDEX AND THUMB FINGERS AND USE THE DATA TO CONTROL THE ANGLE OF TWO SERVO MOTORS AND HENCE SIMULATE A ROBOTIC GRIPPER.

MAKING A LEARNING MANAGEMENT SYSTEM WITH NO BACKEND USING SESSION STORAGE

FOLLOWING ONE OF THE WEB DEVELOPMENT ASSIGNMENTS UNDER THE POWER LEARN PROJECT. THE TASK WAS TO DESIGN THE FRONT END OF A LEARNING MANAGEMENT SYSTEM WHERE A STUDENT OR INSTRUCTOR WOULD LOG IN AND VIEW THEIR PROGRESS. I WROTE A CODE THAT WOULD GENERATE DUMMY DATA AND STORE IT TEMPORARILY USING SESSION STORAGE UNTIL THE USER LOGGED OUT.

MAKING AN ECOMMERCE WEB APPLICATION USING PYTHON DJANGO

FOR MY FINAL PROJECT UNDER THE POWER LEARN PROJECT I OPTED TO CREATE A FULL STACK ECOMMERCE WEBSITE USING PYTHON DJANGO. THE SITE FEATURES ADD TO CART FUNCTIONALITY, REGISTER AND LOG IN USERS WITH THEIR CART DATA STORED IN THE DATABASE. ORDER PLACEMENT AND PAYMENT INTERGRATION USING MPESA VIA THEIR DARAJA API.

MAKING A REACT NATIVE APP TO COMMUNICATE WITH PROGRAMMED IOT DEVICES (ESPRESSIF)

TIRED OF VIEWING DATA FROM MY ESPRESSIF DEVICES ON THE TERMINAL, I DEVELOPED A SIMPLE APP THAT WOULD CONNECT WITH ANY DEVICE ON THE SAME NETWORK AND RUNNING MY PROGRAM. I USED UDP BROADCAST TO SEND A MESSAGE TO ALL DEVICES ON THE NETWORK AND ONLY SPECIFIC DEVICES WOULD RESPOND. THIS WOULD PROVIDE THE DEVICES IP ADDRESS TO INITIATE A WEBSOCKET CONNECTION AND GET SENSOR DATA. THIS PROJECT IS STILL A WORK IN PROGRESS