

Allan Vikiru

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A software engineer with a career objective of solving problems by conducting informative research and applying effective solutions in Information Technology.

Skills

WEB DEVELOPMENT

- Sass, JavaScript, PHP, MySQL, Node.js, Laravel, WordPress

DATA SCIENCE

- Python, R, MATLAB, and Microsoft Power BI
- Techniques: Data Preparation, Data Visualisation, Regression Modelling, Neural Net Modelling

INTERNET-OF-THINGS

- C/C++, Arduino, ThingSpeak and Azure IoT.
- Protocols & Networks: MQTT, HTTP, GSM, WiFi, LoRaWAN

SOFTWARE AND CLOUD ENGINEERING

- Git, GitHub, GitLab, Docker, Heroku, AWS, Microsoft Azure, Google Analytics
- Techniques: DevOps, System Analysis and Design, Agile, Scrum & Prototyping Models

UI/UX DESIGN & DEVELOPMENT

- Tools: Adobe XD, Figma

RESEARCH & TECHNICAL WRITING

- GitHub, LaTeX
- Techniques: Grant Proposal Writing, Research Paper Writing, System & User Documentation

Experience

MARCH 2022 - PRESENT

Graduate Assistant / School of Computing and Engineering Sciences, Strathmore University

- Providing support to faculty in conducting tutorials for specific courses and conducting research activities as assigned.
- Engaging in professional development as appropriate and regularly update subject related knowledge base such as curriculum reviews.

JANUARY 2022 - PRESENT

IoT Research Lab Intern / @iLabAfrica

- Under the software development team, handling application design as well as analytics for data collected by IoT powered devices.
- Implementing an end-to-end IoT based solution that applies LoRaWAN.

- Carrying out code reviews and feature development on a web dashboard in Vue.js and Node.js for an ongoing research project.

MAY 2021 – NOVEMBER 2021

Corporate IT Systems Assistant / Quantum Facilities Management

- Part of the IT team tasked with creating and maintaining solutions that support the firm's core business processes.
- Carried out code reviews and SEO tools for the business site that significantly improved the site's navigation experience as well as overall engagement by 70%.
- Designed and built a web application in PHP and JavaScript to handle core marketing records.

JUNE 2020 – MAY 2021

Freelance Web Developer

- Designed, developed, debugged, and maintained various WordPress based applications such as e-commerce platforms, blogs, and business sites.
- Implemented and reviewed custom plugins to carry out various functions on WordPress admin panel.
- Applied techniques in SEO on a project which brought about a 50% increment of site engagement

JANUARY 2020 – MARCH 2020

Software Developer Intern / Slash Dot Labs

- Part of the frontend development team, tasked with designing, developing, debugging, and documenting Laravel and WordPress applications.
- Carried out code reviews and debugging to revitalise internal domain registration processes
- Served as Team Lead for a project that involved rebuilding ecommerce and retail platforms that serve 100+ customers per month; that resulted in positive end user satisfaction as well as the development team.

FEBRUARY 2019 – NOVEMBER 2019

Student Fellow, e-Health Unit / @iLabAfrica

- Worked under the system testing and debugging team for a web application built in Laravel and Vue.js
- Implemented code reviews and unit testing that led to an improvement in the general application runtime.

Education and Training

JUNE 2022 - PRESENT

MSc. Information Technology / Strathmore University

Awarded a scholarship to pursue postgraduate studies as part of the graduate assistantship.

SEPTEMBER 2022

Python in Practice / Obuda University

Trained in Python programming concepts.

MAY 2022

IT Essentials Instructor / AFRALTI

Trained in teaching CISCO IT Essentials course.

MARCH 2017 - SEPTEMBER 2021

BSc. Informatics and Computer Science / Strathmore University

- Award: First Class Honours (CGPA: 14.52)
- Activities: Strathmore University IT Students' Association (SUITSA), Writer – Public Relations Senate, Strathmore University Student Council (2017-2018)

Projects

IoT Based Firefighter Health Monitoring System

- A system developed to assist fire service personnel in determining the chances of firefighters sustaining fireground injuries.
- Includes a wearable device prototype that incorporates Internet-of-Things technology, a cloud-based dashboard for live monitoring, and a web application for generating reports and information management.

Workshops & Conferences

- 1) Vikiru, A., & Khakata, E. (2021). Detecting the Risk of Fireground Injuries among Firefighters using IoT. Paper presented to 6th Strathmore International Mathematics Conference, Nairobi, 28th June - 2nd July.
- 2) Vikiru, A., Nyairo C., & Kirui, J. (2019). Automated Estate Services Management System. Paper presented to 17th ICT Conference, Nairobi, 21st - 22nd March.

Competitions & Awards

JULY 2022

Kilimani Prop-Tech Hackathon / Kilimani Project Foundation & @iLabAfrica

Co-developed and presented a solution that implements IoT and data analytics for monitoring levels of noise pollution within a residential area.

OCTOBER 2021

Africa IoT and AI Challenge / IEEE & BENYA

Selected among the top ten projects in the Kenyan chapter. Presented a solution that implements IoT to assist firefighters in determining the risk of sustaining fireground injuries.

FEBRUARY 2021

Dean's List Award / Strathmore University

Recognised for academic excellence for the 2019/2020 academic year.

JULY 2019

Dean's List Award / Strathmore University

Recognised for academic excellence for the 2018/2019 academic year.

JUNE 2019

Konica Minolta National University Contest / Express Automation

Emerged 1st Runners Up nationally as part of a team of three; by developing a solution based on augmented reality technology, that sensitises the importance of recycling.

Volunteer Activities

JANUARY 2018 – FEBRUARY 2018

Student Volunteer / Gertrude's Children's Hospital

Assisted patients and hospital staff in various departments such as Outpatient, Laundry & Housekeeping, Radiology and Pharmacy.