Samuel Nshumbushijwenayo

Mechanical & Software Engineer

Summary

Experienced in Mechanical systems design and integration with a demonstrated history of working in mechanical based companies. Again, I am a full-stack software engineer with a passion of building products that improve the living standards of my community. In many years of experience, I have been working as part of various teams, both onsite and remote acting in lead and member capacity.

Kigali, Rwanda
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LinkedIn GitHub

Education

University of Rwanda, College of Science and Technology, Kigali City, Rwanda
Department of Mechanical Engineering
Bachelor of Science (Hons) in Mechanical Engineering
4 years (September 2015 - November 2019)
Cumulative Average: 76.66%
Advisor: Dr.Kayibanda Venant

École Secondaire du Saint Esprit Nyanza, Southern Province, Rwanda
Mathematics-Physics-Geography
Rwanda Advanced Certificate of Education
3 years (January 2012 - November 2014)

Groupe Scolaire Saint Aloys Rwamagana, Eastern Province, Rwanda
Rwanda Ordinary Level Certificate
3 years (January 2009 - November 2011)

Languages Proficiency

Kinyarwanda: Native
English: Intermediate
French: Beginner
Chinese: Beginner

Trainings and Professional Experience

Andela Technical Leadership Program, Andela, Kigali-Rwanda
Trainee (September 2020 - Present)
Engineering Experience Lead: Emmanuel Monehin
- As a JavaScript enthusiast, I managed the assigned projects by using Trello and Pivotal Tracker during BootCamp, Project Work, Apprenticeship.
- Implemented RESTful APIs built on Node/Express JS by using MongDB, PostgreSQL and Firebase databases.
- Built User Interface (UI) using React JS, HTML5, CSS & SASS and designed Mockups using Figma.
- Tested frontend and backend applications using Jest and Mocha/Chai to improve the quality and confidence of the work.
- Built fully automated Continuous Integration & Deployment (CI/CD) on TravisCI, CircleCi and DeepCode.
- Deployed and hosted completed applications on GitHub, Netlify, Heroku, Varcel and uploaded media files on Cloudinary.
Key Achievements
- Completed and contributed different web apps like Rivo Pet, and Barefoot Nomad for booking hotels.

Rwanda Space Agency (RSA) & Rwanda Utilities and Regulatory Authority (RURA), Kigali-Rwanda
Professional Intern (October 2019 - Present)
Supervisor: Lt. Joseph Abakunda
- Contributing to different scientific research projects in the Rwanda Space Agency.
- Started a Python course for data analysis and visualisation.
- Designed the structural components and conducted simulation analysis on HEPTA-SAT Kit components.
- Participated in different monitoring services and maintaining mobile antenna vehicles.
- Participated in the **2019 Seminar on Satellite Application for Rwanda** in China.
- Participated in **HEPTA-SAT training on Cube-Sat** prepared by UNISEC Global, Rwanda Utilities Regulatory Authority (RURA), and University of Rwanda.

Metropole Motors Ltd, Kigali-Rwanda
Safety & Inventor Engineer (July 2019 - October 2019)
- Volunteered and monitored automobile maintenance; repairing and servicing (like replacement of engine oil, replacement of fuel filters, refiling of gearbox oil and refiling of differential oil); engine revision; and replacement of camshaft.

Research Experience

Empower Energy Design, Physics Laboratory, University of Notre Dame, Indiana-United States
Research Fellow & Country Vice-coordinator (March 2018 - July 2019)
Supervisor: Prof. Abigail Mechtenberg
Project Manager: Perfect Mfashijwenimana
- Successfully built 1 KW Micro-Hydro Power Plant system at Gasiza, Rulindo District.
- Conducted surveys and field studies for small power plants construction feasibility at Musanze District.
- Designing, Manufacturing, and Testing of Disk-Generators Using Different Energy Generating Systems.
- Designed all systems using SOLIDWORKS software including a Table Generator.

Final Year Project, University of Rwanda, College of Science and Technology, Department of Mechanical engineering
Undergraduate Student (November 2015 - November 2019)
Supervisor: Dr. Kayibanda Venant
- Conducted a final year project titled "Improvement of the Efficiency and Weighing Systems." A Case Study at Pfunda Tea Company.
- Participated in Industry 4.0 training on Mechanization; Industrialization; Automation; Digitizing and networking prepared by FESTO Didact, a Deutsche company.
- Designed and implemented different projects using SOLIDWORKS software.
- Served as a class representative for four years in University of Rwanda, Department of Mechanical Engineering.

Technologies

Mechanical Based Softwares

OpenRocket, SOLIDWORKS, Fusion360, MatLab, ANSYS

Software Development Softwares

HTML5, CSS3 & SASS, GitHub, GitLab, JavaScript, Node JS, React JS, Express JS, PostgreSQL, Sequelize, MongoDB, Mongoose, Firebase, Postman, Swagger API Documentation, Netlify, Heroku, and Varcel, Trello, Pivotal Tracker, Continuous Integration (TravisCI, CircleCI, DeepCode, Coveralls, Code Climate, HoundCI), EsLint, DevOps.

Personal Attributes

Honest, Result oriented, Attention to detail, Creativity, Self-motivated, Time manager (punctual), Deliver and seek for feedback, Teamwork.

Referees

Lt. Joseph Abakunda, Chief Strategy Officer at Rwanda Space Agency- Rwanda, +250783267732, jabakunda@space.gov.rw

Dr. Kayibanda Venant, Postdoctoral Researcher at Texas A&M University College of Engineering- United States, Senior Lecturer at University of Rwanda, Rwanda, +250788411163, kayiveg@gmail.com

Perfect Mfashijwenimana, Electrical Engineer at ThermalTech Engineering- United States, +1 (574) 229-7822, pmfashij@nd.edu

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