
EXPERIENCE

- **Loanbee Limited** Nairobi, KE
Machine Learning and Distributed Systems Engineer Dec 2017 - Present
 - **Alternative Credit Scoring:** Built an alternative scoring model using machine learning(neural networks) and mobile data.Reduced default rate by 15%. Built the architecture to serve the model via REST APIs.Based on Tensorflow.
 - **Fraud detection and mitigation:** Reduced the number of fraudulent users by using decision trees, neural networks and gradient boosting to categorise users based on their activity and behavior.
 - **Data pipeline and microservices:** Built the big data pipeline to easily test machine learning models and serve them through APIs by using Hadoop, Spark, Kafka and AWS.Built the microservices using Docker and reduced the ETL process significantly.
- **Deveint Limited** Nairobi, KE
Senior Software Engineer May 2016 - Dec 2017
 - **Mobile Development:** Started the initial team of Android and iOS developers.The team has since grown to over 4 developers and over 5 apps deployed to Playstore and Appstore with over 100k downloads in total.
 - **Nairobi Securities Exchange:** Led a team of 5 engineers to develop Android and iOS apps that enable users to access real-time trading statistics. Automated the migration of over 8GB of Excel data into PostgreSQL and HDFS. Sanitised the data and removed any unwanted values.
 - **Linux System Administration:** Formed the first cyber security team in the company to protect the servers, reducing the number of successful hackings significantly.Ensured accountability in server access by disabling root login, using 2FA , requiring all developers use SSH keys and creating a role-based access system using Bash.
 - **Panelist:** Gave a talk to over 20 start-ups on what is Big Data and how they can take advantage of it.Gave a short intro to Hadoop and Map Reduce.
- **Beyonde Labs** Remote
Software Engineering Consultant Sept 2015 - Dec 2016
 - **XPRIZE BomaEd:** BomaEd is a learning platform for kids in areas with no teachers. Researched the initial product and developed the prototype. Built a custom android based OS that can be easily installed on any device for the kids.
 - **KaziPlus:** Helped in the development of the recruitment site for developers and designers.
- **Webtribe Limited** Nairobi, KE
Software Engineer Intern May - Sept. 2015
 - **National Health Insurance Fund:** Redesigned the National Health Insurance Fund(NHIF) application following Material Design principles , increasing downloads to over 100K on Playstore, fixed previous race conditions and crashing issues.
 - **Soja:** Soja is a visitor management system. Designed and developed the mobile application. Deployed the server side code to the company's servers and set up the initial schema.
- **Jomo Kenyatta University of Technology** Nairobi, KE
Project Leader May 2017 - Present
 - **Volunteer Tutor:** Introduced over 40 students to machine learning using Tensorflow by building a Convolutional Neural Network(CNN) that categorizes objects in images.Taught a 4-week introductory course on Android basics and unit testing.

PROJECTS

- **MPESA SDK:** Open source SDK to enable developers to easily accept mobile payments in their apps.
- **Research Speaker:** Presented my research to over 100 people on fraud detection in Fintech using machine learning at the first IndabaXKenya conference on Artificial Intelligence
- **Big Data panelist:** Advised over 20 SMEs and startups how to harness Big data and Machine Learning to cut costs and improve efficiency

EDUCATION

- **Jomo Kenyatta University of Science and Technology** 2019
Bachelor of Engineering in Electrical and Computer; GPA: 3.5