Kiprono Elijah Koech | Résumé

⌂ Nairobi, Kenya

📞 + (254) 704 50 0007 • ✉ kiprono@aims.ac.za • 🌐 kipronokoech.github.io/

in : https://www.linkedin.com/in/kipronokoech

Summary

Highly analytical, ingenious and results-oriented data scientist and statistician focusing on being a grounded researcher providing solutions to real-world problems through data analysis and modelling. Possessing working knowledge of Python programming and database management using SQL with the application in predictive modelling and data analysis, among other areas.

Key Skills

Areas of Expertise

Reproducible Research   Data Analysis   Applied Statistics   Data Visualization   Data Mining and Wrangling   Database Management   Applied Mathematics   Deep Learning   Machine Learning   Computer Vision

Tools and Technologies

Python   SQL   R (familiar)   Microsoft Office Suite   Git Version Control   Linux   TensorFlow and Keras   Docker   Scrapy and Selenium   HTML and CSS   Tableau   Microsoft Office Suite   SPSS   LaTeX

Soft Skills

Reliable Team Player   Problem-solving   Adaptability   Time Management   Excellent Communication

Education

Stellenbosch University
Cape Town, South Africa
Certificate: **Master's Degree in Applied Mathematics (Data Science)** — *Feb 2020 – Apr 2022*
Research area: *Deep Learning/ Computer vision*

Stellenbosch University
Cape Town, South Africa
Certificate: **Master's Degree in Mathematical Sciences, *Cum Laude*** — *Jan 2019 – Nov 2019*
Research area: *Machine Learning and Computer Vision*

Jomo Kenyatta University of Agriculture and Technology
Nairobi, Kenya
Certificate: **Bachelors Degree in Science (Statistics), *First Class Honors*** — *Sep 2013 – Nov 2017*

Work Experience

Data Science Intern, Kenya Meteorological Department
Nairobi, Kenya
A brief: Working on techniques to improve weather forecasting. — ***April 2022 – To Date***

- Working on improving weather forecasting through application of machine learning recurrent neural network models,
- Testing new parametrization schemes, and,
- Optimizing data assimilation procedures for Weather Research and Forecasting (WRF) model initialization.

Research Fellow, Science of Intelligence
Berlin, Germany
A brief: Worked on a computer vision project at Technische Universität Berlin. — ***Feb 2021 – Aug 2021***

- Worked on action recognition problem for wildlife

Data Science Technical Mentor, Great Learning - Olympus
(Remote) Texas, U.S.A
A brief: A mentorship and tutoring role for data science students. — ***Nov 2020 – Aug 2021***

- Mentored and tutored 6 students per semester taking a course in Data Science and Business Analytics at Olympus, attaining 100% successful completion of the course.

Data Clerk, PACT-Timiza
Kisii and Migori, Kenya

A brief: Data entry, management and analysis role involving HIV patients information. **Jan 2018 – Dec 2018**

- Managed HIV patients data for over 10,000 clients. This involved entering information on the paper into the IQ care database; analyze the data to locate clients with poor adherence and recommend follow-up; and data quality checks.
- Follow-up reduced the cases of poor adherence to anti-retroviral by over 70% and be able to close cases as required. Rectified an event that almost led to the loss of 2300 data points due to system failure. The by-product of this was setting up a more robust backup pipeline.

Statistician Intern, South Nyanza (SONY) Sugar Company

Migori, Kenya

A brief: An internship working with factory data in a sugar company. **Jun 2017 – Dec 2017**

- Analyzed factory data to explain production trends and seasonality phenomena.
- Particularly analyzed downtime data and reported variables that are most significant in impacting the extent of downtime. Upon implementation, there was a 42% drop in downtime in 2018 compared to 2017.

Projects

1. **Reviews Classification** | *Skills: Web scraping, Sklearn, machine learning algorithms*
   - This project involves scraping over $200k$ reviews using Scrapy and classifying them as positive or negative using different Sklearn models. Also, dealing with the issue of data imbalance.
   - SVM classifier was the best in this application achieving an F1 score of 89%... the code is in this GitHub repo.
2. **Fruit Detection** | *Skills: Python, TensorFlow and Keras, Computer Vision*
   - In this project, Mask R-CNN and YOLOv5 are deployed in context from fruit detection on outdoor images (apples and mangoes).
   - The two models achieved on-par state-of-the-art results attaining 93% and 88% F1 score for mango and apple images, respectively... more information in GitHub.
3. **Crop Disease Classification** | *Skills: Python, TensorFlow and Keras, Computer Vision*
   - This is classification problem applied to Agriculture. This project was presented as a solution to a Zindi Challenge and ranked as top 15% solution...more information in GitHub.

Award and Honors

Golden Key Award, for being among the top 15% academic performers among the 2019 cohort.
(2020-2022)
African Institute for Mathematical Sciences(AIMS) Scholarship, for MSc Mathematics at S.U
(2019-2010)&(2020-2021)
Award for Excellence, African Institute for Mathematical Sciences(AIMS)
(Jan 2019- Nov 2019)
Vice-Chancellors Academic Award, the best student in Bachelor of Science (Statistics option)
(2014/2015, 2015/2016 and 2016/2017 academic years)
First place, Mathematics contest with 1954 contestants
(2012)

Groups and Societies

- Computer Vision and Remote Sensing Group at Technische Universität Berlin, Germany [1]
- Data Science Research Group at African Institute for Mathematical Sciences, South Africa [1]
- Golden Key International Honour Society
- Kenya National Society of Statisticians

Hobbies and Interests

- Volunteering and Charity work.
- Playing puzzle games like Rubik's cube and Sudoku game.
- Reading books. Currently reading "Mastery" by Robert Greene and "The Magic of Thinking Big" by David Schwartz, PhD.