

RANCY CHEPCHIRCHIR

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SUMMARY

AI and Data Science researcher with expertise in Natural Language Processing (NLP), Machine Learning, Computer Vision, Healthcare AI, and Trustworthy AI. First author of a research publication, with experience developing AI solutions for healthcare, sign language processing, medical imaging, and large-scale data analytics. Interested in NLP, privacy-preserving AI, explainable AI, AI safety, and health informatics.

WORK EXPERIENCE

Course Instructor

LinkedIn Learning Jan 2024 – Present - Published my first [course](#) with LinkedIn designed to equip finance professionals with the skills to harness the computational power of Python directly within the familiar environment of Excel.

Data Scientist (NLP)

Derivation LLC (Product of SIL) – Remote Apr 2023 – Feb 2025 - Building apps on Dash; Real-time Sign Language Model (en & ke); Data scraping, maintaining the DLS App

Lead Data Analyst

Village Book Builders – Remote Jan 2023 – Aug 2023 - Building dashboards with Google Data Studio and PowerBI & In charge of the databases (creating relational diagrams) - Weekly reports on student/mentor attendance and related analysis

Data Scientist Feb 2022 – Dec 2022 ProfessorBob.ai – Paris / Remote

- Improving on the current parsing script; Weekly summaries of recent research journal papers on NLP - Checking on up-to-date NLP libraries employed in the field & making presentations on the same

Data Science in Investment Banking Fellow Nov 2021 - Apr 2022 Prospect 33 – Remote

- Built an anti-financial crime solution with an AI model with the use of graph neural networks; Scrum master

Finance and Research Analyst Nov 2021 - Feb 2022 Maitri Capital – Nairobi, Kenya

- Building web crawlers for scraping data on African startups and data visualization
- Preparing and Reporting weekly top deals, blockchain, and 'Future of Work – Africa' newsletter

Data Analyst Jun 2020 - Nov 2021 Trounceflow – Remote

- Data Scraping and parsing data sets
- Data Analysis and Visualization; Reporting and preparing Country and daily Emails

Management Trainee Jan 2018 - Dec 2019 Bank of India – Eldoret & Mombasa, Kenya

- Assisted in the management of company policies and practices, timely submission of compliance reports - Assisted in the analysis of interrelated departmental functions for optimized workflow.

OTHER EXPERIENCE

Research Assistant Mar 2015 - Jun 2017 Strathmore University @iLab Africa

-Restructuring and filtering county and sub-county data from county reports in pdf to xls formats - Working paper on crime rates across the counties and if any correlation with poverty levels

Research Assistant Nov 2015 - May 2016 Strathmore Business School - Nairobi

-Summarizing and filtering data from the annual reports into xls files
-Giving reporting scores to companies' qualitative information for an integrated reporting framework

EDUCATION

- Profession

International Capital Market Association (ICMA) Feb 2023 – Feb 2024 - Introduction to Bond Markets Qualification (IBMQ); Inflation-Linked Bonds

WorldQuant University Apr 2020 - Jun 2020 - Scientific Computing and Python for Finance, rigorous programming concepts for Python

CFA Institute Jun 2023 - CFA Level 2 Candidate

Corporate Finance Institute (CFI)

- Awarded the Financial Modeling & Valuation Analyst (FMVA)[®] Certification **July 2022** - Undertook the Business Intelligence & Data Analyst (BIDA)[™] Program **Oct 2022** -Academic

MSc Artificial Intelligence & Data Science (With Distinction) May 2024 - July 2025 University of Hull

- Python Programming; AI & ML Applications; Research
- Working paper on 'Bayesian neural networks for stock price forecasting'
- Thesis on 'Exploring Deepfake Detection: A Comparison Study'

Bootcamp in Data Science & AI May 2020 - Aug 2020 The AI Institute

- Did prediction and classification with deep learning models; Image Processing & NLP projects. - Built a credit scoring model; a customer segmentation model; a face and object detection models etc.

MSc Financial Engineering Apr 2018 - Jun 2020 WorldQuant University

- Financial markets, Econometrics, Discrete-time & Continuous-time Stochastic Processes
- Working paper on weather shocks on agricultural commodities prices and graduated with distinction.

BBS Financial Economics Jan 2011 - Jun 2015 Strathmore University

- Did a valuation of a Kenyan startup, 1809.
- Published a paper on Futures Trading and Spot Price volatility and presented in the PARTY3 conference at Liverpool.

RESEARCH CONFERENCES/PUBLICATIONS/HACKATHONS

- Paper accepted for presentation - PARTY5 Risk Management (Liverpool) **Dec 2015** - Attended and took part in the 4th Big Data Africa School 2023 - Won for 'Most Progress' and 'Best Team' **Mar 2023** - Accepted into the SPARK Academy for Medical Imaging training **Apr '23 - Jun 2023** - Received a LACUNA Fund to attend the MICCAI Conference in Oct, 2023 at Vancouver and presented a poster **Oct 2023**
- Had a paper accepted and a poster presentation at the MICCAI 2024
- Chepchirchir, R. et al. Generative Style Transfer for MRI Image Segmentation: A Case of Glioma Segmentation in Sub-Saharan Africa arXiv:2501.04734. <https://arxiv.org/abs/2501.04734>

SKILLS

Programming: Python, R, Julia, SQL
ML/DL: PyTorch, TensorFlow, Scikit-Learn
NLP: Hugging Face, Transformers, NLTK, LLMs
Data Engineering: Pandas, ETL, Data Cleaning, Data Standardization
Cloud: AWS, GCP, Azure

VOLUNTEER ACTIVITIES

Mentor, Coding Black Females **Jan 2022 - Present** - Discussing with my mentees the outlook and trending tools in the industry
Malaria Youth Army, African Leaders Malaria Alliance (ALMA) **Nov 2021 - Present** - Support NMCP in promoting malaria advocacy; Participate in youth coordination forums and meetings.

HOBBIES

Coding and Traveling Community Events; Mentoring students in tech, Reading & creative writing