Bekimpilo Ndlovu

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Bekimpilo is a self-starter, a fast learner, and a resourceful Data maverick and Systems thinker with a background in Actuarial Science and Artificial Intelligence and client-facing experience in both private and public sectors. Beki is passionate about channeling his deep understanding of math and his creativity towards solving socially undesirable phenomena. Beki recently qualified as an AI Auditor in the EU AI Act (FHCA) and an Expert in the AI Risk Management framework (FHTE).

Education

Universidad Politécnica de Madrid   Grad Date: Aug. 2023

MSc in Artificial Intelligence for Public service (AI4GOV)
- Research Topic: Requirements elicitation in the age of Large Language Models: Using the Connextra format as a prompt template for generating user stories.

National University of Science and Technology (NUST), Zimbabwe   Grad Date: Nov. 2013

BCom (Hons) in Actuarial Science
- Research Topic: Catastrophic Models: An essential tool in the assessment and management of drought risk in Zimbabwe

Certificates

ForHumanity University
- ForHumanity Certified Auditor- EU AI Act (2024)
- ForHumanity Trained Expert on Risk Management Framework (2023)
- Foundations of Independent Audit of AI Systems (2023)

ETH Zürich- Summer School
- Advanced Course - Health Data and AI: Responsible Innovations, Ethics and Regulatory Strategies, Artificial Intelligence (2022)

World Bank Certificate
- Skills Building Program on AI, Big Data and Decision Science in Health and Nutrition, Data Science (2018)

The Scrum Alliance
- Certified Scrum Product Owner (CSPO) (2021)

Experience

Clinton Health Access Initiative, RSA   Jan 2024 – Present
Associate: Sustainable Health Financing (Analytics Consultant: Office of DDG-NHI)   *Pretoria, RSA*
- Led analytics activities for the Contracting Units for Primary Healthcare (CUPs) Project team and I played a critical role during the training of key provincial team members on NHI proof of concept
- Oversaw the demarcation process for the 400 CUP boundaries, working closely with the contracted team of developers from CSIR.
- Developed a tool to map healthcare providers using SERP API and Streamlit UI and deployed it on a free instance of Render Cloud Application. This saved the NDoH about ZAR240,000 annual license costs.
- Conducted big data analytics and visualization for the Central Chronic Medicines Dispensing and Distribution (CCMDD) project, leveraging a vast dataset with over 15 million transactions to inform strategic decision-making. I conducted exploratory data analysis to uncover patterns in the data.
- Led the M&E for the Health Systems Strengthening unit by designing and developing data collection tools and activity monitoring tools with partial automation and built dashboards on PowerBI to visualize the data
- Formulated the value for money indicators (VFM) and designed the data collection template to track performance against the indicators

Clinton Health Access Initiative, RSA   Jan 2021 – Dec 2023
Associate: Systems Strengthening   *Pretoria, RSA*
- Successfully digitalized and automated the leave application process by developing a PowerApps and SharePoint application.
- **Explored AI use cases in public health by**
  - developing an LLM-powered market intelligence assistant
  - utilising NLP techniques such as named entity recognition and sentiment analysis on news articles to identify medicines at risk of stockout.

- contributing to AI in health and climate change business development activities
- Designed a playground for an AI-powered chatbot built on ART standard treatment guidelines, in response to the Grand Challenges request for proposals
- Successfully managed the RSA Pharma project by enhancing the suite of analytical tools, driving product innovation, defining the product roadmap, and managing business requirements as I interfaced 95 pharma companies

Clinton Health Access Initiative, RSA
May 2018 – Dec 2020

Business Analyst   *Pretoria, RSA*

- Leveraged data analytics drive significant improvements in compliance rates and reduce error rates, ultimately optimizing system maintenance and support costs. This led to the increase in compliance rates from a three-year maximum rate of 77% to 98.75%
- Realised 66% cost savings on monthly system maintenance and support cost because of rigorous expenditure analysis
- Developed dashboards on PowerBI & Tableau, to monitor 1100+ medicine procured by the government worth R17 billion per year.
- Effectively communicated with other Product leads, mainly external consultants, to ensure cross-functional product integration between RSA Pharma and other systems
- Successful transition from the legacy system to the new version of RSA Pharma system, and enhanced system performance.
- Supported demand planning team with forecasting activities for life saving medicines using prophet python package
- Responsible for Software vendor contracting and management

Maksure Risk Solutions
Jan 2017 – May 2018

Actuarial & Broking Analyst   *Midrand, RSA*

- Developed risk profiles, portfolio performance analysis, claims analysis, and cresta zone analysis during reinsurance treaty renewals for insurance companies.
- Engaged with underwriting managers to broker facultative reinsurance and supported Treaty reinsurance broking
- Gathered business requirements for the in-house system development and testing of the in-house administration software for the reinsurance department to the developers.

SolveCo Actuaries & Consultants (2016)

Actuarial Analyst   *Rosebank, SA*

- Conducted actuarial and product testing for Sanlam life insurance subsidiaries across SADC.
- Researched the Swaziland pension landscape and regulation and presented findings to senior management.

IHAV Foundation, Ghana (2013-2015)
Vice President/ Co-Founder

- Leadership & Strategy: Created and implemented the organization's vision, mission, and strategic plans.
- Partnership & Fundraising: Sought partnerships and sponsorships to support the organization's activities and the 1st regional conference held in Accra, Ghana

Skills

Programming Languages: Python, R, SQL, HTML/CSS, Power Fx
Libraries: Pandas, NumPy, Matplotlib, Plotly, Scikit-Learn, NLTK, TextBlob, SpaCy, PySpark, Streamlit
Tools: Microsoft365, Google Cloud, Render, Docker, Power BI, Looker Studio, Tableau, Git, Spark, Trello, Figma
AI/ML/Data Science: NLP, LLM, RAG, Agents, Knowledge Reasoning & Representation, Data visualization, Exploratory Data Analysis, Geospatial Analytics

Awards

- Full sponsorship by United States Telecommunication Training Institute (USTTI) - Developing Multi-Site Digital Health Networks training at University of Arkansas for Medical Sciences (2024)
- Full award to attend Summer School organized by ETH AI Center- Advanced Course on Health Data and AI: Responsible Innovation, Ethics, and Regulatory Standards (2022)
- POTRAZ national competition for the best concept papers on Digital Technologies- Finalist (2013)
- Top 250 innovative students invited to the Kairos Global Summit at the New York Stock Exchange, New York, USA (2013)
- Top 100 students invited to the 8th South American Business Forum (SABF) in Buenos Aires, Argentina (2012)

Volunteer

- CHAI South Africa Training Committee member (2023-)
- AI, Algorithmic and Automation Incidents and Controversies (AIAAIC) Supporter for Healthcare Incidents

- Mentoring two young girls to code and deploy static websites, since they were 11 & 13