Melaku Tafere

Los Angeles, CA· LinkedIn ·melakusisay@gmail.com· Website: https://melaku23.github.io

SKILLS SUMMARY

- Python programming
- SQL/MS Access/R
- Linux
- Tableau software
- A/B testing
- Machine learning
- Predictive modeling
- Data visualization
- Explanatory data analysis (EDA)
- Statistical analysis
- Communication

- Network security
- Information security
- Vulnerability management
- NIST – cybersecurity framework
- SIEM tools
- Solid state synthesis
- X-ray powder diffraction analysis and Rietveld refinement
- Neutron powder diffraction analysis
- Pair distribution analysis (PDF) analysis

EDUCATION

- Masters in physics, University of Texas at El Paso, USA.
- Master of Science - Astrophysics and Space Science, University of Cape Town, South Africa.
- Bachelor's Degree, University of Wolaita Sodo, Ethiopia.

Google Advanced Data Analytics Certificate

- Prepared, processed, and analyzed data to inform business decisions. Worked effectively to create visualizations to share findings with stakeholders and provide recommendations driven by data. This certificate covered the seven grounds of data science, worked with Python, translated data into insights, worked on the power of statistics, simplified complex data relationships, and studied the nuts and bolts of machine learning.

Google Cybersecurity Certificate

- Studied how to identify common cybersecurity risks, threats, and vulnerabilities, as well as the techniques to mitigate them. Gained hands-on experience with Python, Linux, and SQL. Learned how to protect networks, devices, people, and data from unauthorized access and cyber attacks using Security Information Event Management (SIEM) tools, Intrusion Detection Systems (IDS), and network protocol analyzers (packet sniffing).

PROFESSIONAL EXPERIENCE

Expert Contributor – AI Reasoning & Data Annotation, Snorkel AI

- AI Model Evaluation & Theoretical Reasoning Validation
- Logical Error Detection & Self-Correction Mechanisms in AI
- Data Annotation
- LLM Prompt Engineering for Reasoning and/or graduate-level Knowledge Tasks

Graduate Teaching Assistant , University of Texas at El Paso, USA

- Write proposals for national laboratories
- Organized and led labs for the undergraduates
- Published a research paper on magnetism for my master's program
- Graded tests and assignments
- Taught Physics and Astronomy to undergraduate students

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Publications and conference

Hector C Mandujano[1], Melaku Sisay Tafere[1], Naveen Kumar Chogondahalli Muniraju[23], Tielyr D Creason[4], Timothy M McWhorter[4], Krzysztof Gofryk[5], Thomas W Heitmann[6], Qiang Zhang[7], Bayram Saparov[4], Harikrishnan S Nair[1]. Magnetic structures and excitations in sawtooth olivine chalcogenides Mn2SiX4 (X = S, Se). Doi: 10.1039/d3dt00052d. PMID: 37017307.

Texas Academy of Science 125th Annual Meeting at University of Houston-Clear Lake,“ Magnetic structures of sawtooth olivines Mn2SiX4 (X = S, Se) determined through neutron powder diffraction.” Melaku Sisay Tafere, K. Gofryk, B. Saparov, Q. Zhang, H. Nair. February 25th, 2022.