MR. FISOKUHLE GOODWILL THEMBELANI THUSINI

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PROFESSIONAL SUMMARY

Fisokuhle Goodwill Thembelani Thusini is a **Data Scientist** with experience across different fields and industries. Fisokuhle always believes that his hands-on experience coupled with the growing knowledge gained in being a Data Scientist continues to improve the role he plays in the ever changing **data, electronics, and software engineering** industries. Fisokuhle is always prepared to put his knowledge and abilities to deliver the best results in everything he does, while gaining immeasurable experience and skills to advance, in his career pursuit. Fisokuhle is a pioneer, self-motivated, goal orientated, driven and an individual who believes in lifting and empowering others, through the knowledge he has acquired, and experiences gained overtime. Giving back to the community and always striving for continuous improvement.

PERSONAL DETAILS

Location	:	Johannesburg, Gauteng, South Africa
Nationality	:	South African

CORE COMPETENCIES

- Knowledgeable in Python, Flask, LLMs, AI, ML, HTML5, CSS3, React.js, Node.js, NoSQL, SQL, PyTorch, C, C++, C#, ASP.NET, Arduino, Raspberry Pi, MATLAB.
- Competent in Microsoft Word, PowerPoint, Excel, AWS, Linux, Moodle, Salesforce, and Computer Aided Engineering Applications.
- Excellent in budget control, management skills and managing critical skills.
- High levels of accuracy by keeping attention to detail and correctness.
- Good Project Management and Fault-finding skills.
- Good innovation and initiative skills in engineering.
- Always maintaining a proactive approach in the working environment for ease in taking ownership and accountability.
- Research and data analysis skills and good in promoting participation for projects.
- Ability to accurately track inventory and compile reports.
- Highly motivated, energetic, sound judgement and good reasoning abilities.
- Good managerial and interpersonal skills and ability to work under pressure.
- Communication, Time management, Organizational Negotiation, and Planning skills.
- Great team player and can work well independently.
- High level of leadership and decision-making skills.

EDUCATION

Institution	: University of Johannesburg
Qualification	: BEng Tech Honours in Electrical Engineering
Status	: **Completed with distinction (2021)**

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Qualification	: BEng Tech in Electrical Engineering
Status	: **Completed (2018 – 2020)**

WORK EXPERIENCE

Data Scientist
Discovery Limited
Nov 2022 – current
- Collection and analysis of data using Python and SQL.
- Data visualisation on AWS QuickSight and Streamlit.
- Data management and storage using AWS RDS and S3.
- Managing CI/CD and infrastructure as code on AWS.
- Working with both server-based and server-less workflows.
- Data preparation, cleaning, and manipulation to provide valuable insights.
- Working with a team to create and improve Telematics solutions.

Development Engineer
DriveRisk (Pty) Ltd
Feb 2022 – Oct 2022
- Designing Automatic Test Equipment (ATE).
- Designing various Core Product Enhancement – i.e., Trigger PCB using ALTIUM and C/C++
- Using LAB View or Visual Basic to create programs for various Engineering Functions
- Using Python for Tkinter UI designs for testing and labels applications.
- Data storage and management with ProgreSQL and AWS RDS and EC2.
- Assist in training of engineering technicians.
- Assist with High Level fault finding.
- Assist with Analog and Digital electronic design.
- Assist with PCB Design and Layout and Technical reading.
- Software and Firmware Design.

Learning Design Intern
Valenture Institute
Oct 2021 – Feb 2022
- Responsible for the transfer of educational content from existing content templates to revised content templates.
- Working with Learning Designers for different subjects to ensure the content has been transferred and translated correctly.
- Working with Learning Designers to reformat developed content according to the course style.
- Performing auxiliary tasks, including, but not limited to briefing in graphics, and tracking the use of external assets.
- Preparing developed content for upload by implementing proofing changes and altering file formats where necessary.
- Working with subject Learning Designers and Learning Technologists to send, upload and quality assure developed content on the learning management system.

- Conducting accessibility checks on content that has been developed.
- Assist Learning Designers with content research.
- Working with project management and various operational stakeholders to ensure that deadlines are adhered to and that project communication takes place in a timely and effective manner.

BADGES
- **AWS Solutions Architect** (Associate)
- **AWS Cloud Practitioner**

ACHIEVEMENTS
- **Most Innovative (Presented) Project in my Honours degree.**
- **Entrepreneurship: From Idea to Action course completion with the best business idea and pitch.**
- **Youth Capital Influencer.**

PROJECTS

FGT Chat LLMs – A Streamlit app that is a continuation of the FGT Chat app where the GPT-3.5 model is used alongside the Llama2-7b model to showcase the capabilities of the models and the benefits that each provide, where a user pays for what they use in the GPT-3.5 model, reducing costs and they can have the Llam2-7b model self hosted, providing better security.

FGT Workout – An iOS developed using iOS features including computer vision for personalised workouts, where you can see the percentage of your workout compared to how the workout is commonly done. There are also features that connect to the Apple Watch where a person can view their different health metrics such a steps and their average heart rate, as well as being able to to schedule workouts on the app.

FGT Chat – A Progressive Web Application created for collaborative learning, with options to work in groups and take advantage of using Large Language Models (LLMs) such as the GPT-3.5 model to improve and share knowledge using private documents hosted in a private Pinecone vector database. The second part of the project includes and ChatGPT plugin so that users with GPT Plus subscription can choose between using the ChatGPT or the FGT Chat PWA to interact with the model.

AQI Dashboard – A data science web application that uses air quality data from the OpenAQ API to display pollutants in different locations, analysing air quality trends around the world and identifying gaps in air quality reporting. This is a continuation of my Honours degree research where the goal is for every person to know and understand the quality of the air they breath so that they can make informed decisions on taking better care of our planet.

Book Club System – A website created using PHP with the Google Books API that provides an opportunity to book lovers and students to search for books in Google Books, get previews and be provided with options on where to buy these books. Using MySQL, the users can then be able to interact with each other in a discussion board to be able to share books or discuss specific books that they are currently reading.

Chat and File Share Web App – A web app developed with React Js, Node Js, and Google Firebase. The web app uses Firebase authentication to log in using email or with a Google account, then the chats are stored in the Firebase database which is a NoSQL database, with the files shared stored in the Firebase storage and those files can be shared and viewed in the web app.

Stock and Staff Management Web App – A web app developed with a colleague using Python Flask, HTML, and CSS used to manage stock and staff with different access to the system. The application is designed with a user friendly UI, using PostgreSQL to manage and store the data. With the AWS EC2 instance used to host the web application.

Machine Learning Stock Trend Prediction Web App – A web app developed with Streamlit that displays original stock trends compared to predicted stock trends that have been predicted by a model trained using the LSTM (Long Short Term Memory) neural network to learn long term dependencies.

AI Computer Vision – Prevention is better than cure, a computer vision project developed using OpenCV, CVZone and Pyserial to detect construction Hard Hats and Eyeware for better safety ensuring safety in the workplace. With voice prompts, Arduino outputs, and video recording when the Hard Hat is off. Planned expansions of create a UI for better management of the system.

GOALS

- **To create affordable projects for small businesses in the data, electrons, and software aspects.**
- **To invent locally produced products and empower more young people to innovate.**

VOLUNTEER WORK

- Started a small initiative in 2018 to give back to my community by providing information and tutoring grade 12 learners in my former high school.
- Assisting first year students entering university to adapt and settle in university.