**Lesego Makweya**

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**PROFESSIONAL SUMMARY**

Aspiring AI/ML Engineer with a unique background in education and a strong foundation in software engineering. Recently completed an intensive AI/ML bootcamp at CAPACITI, gaining comprehensive hands-on experience across the machine learning lifecycle, from data preprocessing and model development to evaluation and deployment. Adept at problem-solving, data-driven analysis, and building intelligent systems. Eager to leverage a blend of technical skills and a passion for continuous learning to contribute to innovative AI/ML projects and drive tangible impact in a dynamic environment.

**WORK EXPERIENCE**

**Coding facilitator**  Feb ‘19 - Jun ‘21

Pretoria, South Africa

* Tested and evaluated student progress to determine effectiveness and impact of teaching methods, materials and projects.
* Served as an advisor for the school''s robotics club, supporting students in developing technical skills outside of regular class hours.
* Designed appropriate and specialized lesson plans for computer science students.
* Met needs of different students by adapting teaching materials and methods.
* Helped students meet course goals by establishing clear objectives for lessons, units and projects.

**IEC Counting staff** May ‘29 - May ‘30

Centurion, South Africa

* Sorted ballets according to national provisional and regional votes
* Counted the votes received from South Africans in the Centurion region.

**PROJECTS**

**AI Assistant** [View in GitHub](https://www.figma.com/proto/VN770C94GPRfo7zsD96Dj1/EduTech--Community-?node-id=1-2&t=SB0g2RDZC26v0dyC-1&starting-point-node-id=1%3A2)

* Domain: Natural Language Processing (NLP), Conversational AI, Machine Learning Applications
* Technologies: Python, TensorFlow/Keras (or PyTorch), NLTK (or SpaCy), Flask (or FastAPI), API Integration
* Outcome: Developed a conversational AI assistant capable of [e.g., answering queries, automating specific tasks, providing recommendations], demonstrating skills in natural language understanding, response generation, and integrating AI models into a functional application.

**ToDo List** [View in GitHub](https://github.com/lmakweya9/todo-app)

* Built a simple to-do list application using React with features like adding, editing, and deleting tasks.
* Implemented local storage to save tasks between sessions.
* Enhanced the user interface with animations and transitions.

**Weather App** [View in GitHub](https://github.com/lmakweya9/weather-app)

* Created a weather application that fetches data from a public API.
* Displayed current weather conditions, forecasts, and other relevant information.
* Focused on a clean and intuitive user interface.

**E-commerce website** [View in GitHub](https://github.com/lmakweya9/e-commerce-website)

* Developed an e-commerce website using Stripe, HTML/CSS, ReactJS and NodeJS Express.
* Implemented a public API to receive weather updates using a key from the openweather site.
* Used the functions useState to allow the user to search for their city/town.
* Used the fetch method to fetch the weather data from the api

**AI Smart Health Assistant** [View in GitHub](https://smart-health-assistant-68gx.onrender.com/)

* Domain: Machine Learning in Healthcare, Predictive Analytics, Classification/Regression (depending on specific features)
* Technologies: Python, Scikit-learn, Pandas, NumPy, [Potentially: TensorFlow/Keras or PyTorch for more complex models, Flask/Streamlit for demo]
* Outcome: Developed an intelligent health assistant capable of [e.g., predicting disease risk based on patient data, recommending personalized wellness plans, analyzing health metrics], showcasing the application of AI/ML techniques to solve real-world problems in the healthcare domain and generate actionable insights.

**Simple Python Web Scraper** [View in GitHub](https://github.com/lmakweya9/scraper)

* The Tool used to create this simple web scraper is called BeautifulSoup and it provides tools for parsing HTML and extracting data from web pages.
* The targeted website that was used is called quotes to scrape. This web allowed me to scrape and inspect its structure to understand how the data is organized within the HTML.
* Wrote in Python the code that sends HTTP requests to the target website, retrieves the HTML content, parses it to extract the desired data, and then saves or processes the extracted information as needed.

**CERTIFICATIONS**

**Front End Development Libraries** [View credentials](https://www.freecodecamp.org/certification/Lesego12/front-end-development-libraries)

**JavaScript Algorithms and Data Structures** [View credentials](https://www.freecodecamp.org/certification/Lesego12/javascript-algorithms-and-data-structures)

**Responsive Web Design** [View credentials](https://www.freecodecamp.org/certification/Lesego12/responsive-web-design)

**EDUCATION**

**National Higher Certificate** *- Software Engineering* Sep ‘21 - Aug ‘23

WeThinkCode, South Africa

* Completed Coursework: Introduction to Programming, 2021
* Completed Coursework: Data Structures and Algorithms, 2021
* Completed Coursework: Web Development Fundamentals, 2022
* Completed Coursework: Object-Oriented Programming, 2022
* Completed Coursework: Database Management Systems, 2022

**AI/ML Bootcamp** [Dates/Duration] CAPACITI, South Africa April ’25 -

* Intensive practical training in core AI/ML concepts and tools.

**National Senior Certificate** Jan ‘08 - Dec ‘15

Willowridge High School, South Africa

**TECHNICAL SKILLS**

* **Programming Languages:** Python, JavaScript, HTML, CSS, SQL
* **AI/ML Frameworks & Libraries:** TensorFlow, Keras, Scikit-learn, Pandas, NumPy, NLTK, SpaCy, BeautifulSoup
* **Deep Learning Concepts:** Convolutional Neural Networks (CNNs), Model Training, Evaluation, Hyperparameter Tuning
* **Machine Learning Concepts:** Supervised Learning (Regression, Classification), Unsupervised Learning, Feature Engineering, Model Selection
* **Natural Language Processing (NLP):** Text Preprocessing, Feature Extraction (TF-IDF), Text Classification
* **Web Technologies:** ReactJS, NodeJS, Express.js, RESTful APIs, Fetch API, Local Storage, Stripe API, Responsive Web Design , Front-end Development , UX Design Implementation
* **Tools & Platforms:** Git, GitHub, Jupyter Notebooks, VS Code
* **Software Engineering:** Object-Oriented Programming , Data Structures and Algorithms , Clean Code Advocacy , Database Management Systems

**PEOPLE SKILLS**

* Self-organized
* Independent
* Problem-solver
* Team player