# Thomas Shikalepo Deon

Address: Khomas, Windhoek| Email: thomasshikalepo@gmail.com | Phone: +264 81 249 0556 | LinkedIn: linkedin.com/in/thomas-shikalepo | GitHub: github.com/ThomasShikalepo | Portfolio

Website: thomasdeon.netlify.app

## **OBJECTIVE**

Motivated second-year Computer Science student at the Namibia University of Science and Technology, aspiring to secure a software engineering internship at Nedbank Namibia. With a strong foundation in programming languages such as Python and Java and hands-on experience in web development (HTML, CSS, and JavaScript), I am eager to apply my skills to real-world projects. Dedicated to learning, innovation, and collaboration, I aim to contribute to the development of impactful software solutions while gaining practical industry experience.

## **SKILLS**

Skill Category	<u>Skills</u>	Proficiency Level
• Front-End	o HTML	<ul><li>Intermediate</li></ul>
	o CSS	<ul> <li>Intermediate</li> </ul>
	<ul> <li>JavaScript</li> </ul>	o basic
Back-End	<ul><li>Ballerina</li></ul>	<ul> <li>intermediate</li> </ul>
	o PHP	o basic
	o java	<ul> <li>Intermediate</li> </ul>
	<ul><li>Python</li></ul>	<ul> <li>Intermediate</li> </ul>
<ul> <li>Database</li> </ul>	o SQL	o Intermediate

## **EDUCATION**

## Namibia University of Science and technology:

• Computer Science, Software Engineering

## A Shipena Secondary school:

- 41 points in grade 12
- 37 points in grade 11

#### **Certifications:**

CCNA1 (Cisco Certified Network Associate): Basic switching and routing

• CCNA2 (In Progress): Switching, Routing, and Wireless Essentials

#### **PROJECTS**

## Immersive 3D Portfolio Experience

- Conceptualized and built a cutting-edge portfolio website using Next.js, Three.js, and Tailwind CSS, combining innovative technology with artistic design.
- Designed visually compelling animations, including a rotating icon as the main focal point, a
  disappearing staff in the project section for mobile users, and a spinning hat in the "About Me"
  section, showcasing advanced use of Three.js for 3D modeling.
- Incorporated audio features to enhance interactivity, demonstrating attention to user engagement and experience.
- Utilized GitHub APIs to dynamically display real-time coding activity and performance statistics, reflecting strong integration and API handling skills.
- Optimized the website for responsiveness and accessibility across multiple devices and platforms, ensuring a flawless user experience.

## Football Match Analysis Using AI and Computer Vision

- Developed a video analysis system to detect and track players, referees, and footballs using YOLO for real-time object detection.
- Enhanced detection accuracy by training the YOLO model with custom datasets.
- Segmented and clustered players into teams using K-means, enabling the model to differentiate between teams and analyze ball possession percentages.
- Implemented player and referee tracking, distinguishing roles and teams during match analysis.
- Applied optical flow and perspective transformation to measure movements and convert pixel data into real-world metrics like speed and distance covered.
- Tackled real-world challenges, integrating computer vision, clustering, and object tracking for advanced sports analytics.

## **Micrograd Implementation and Development**

- Built a lightweight autodiff engine inspired by Micrograd to simulate neural network operations.
- Implemented forward and backward propagation for gradient-based learning in a custom computational graph.
- Optimized machine learning workflows using Python and libraries such as NumPy, Matplotlib, and Graphviz for visualization and computation.

• Demonstrated expertise in implementing neural network foundations, including gradient descent and optimization techniques.

## Kafka logistic system

- Designed an Apache Kafka logistic system using Ballerina as the backend.
- Implemented features for standard, express, and international shipping options.
- Utilized Kafka as middleware to efficiently handle logistics, managing data through various topics.

## **Personal Website**

- Developed a personal website using HTML, CSS, and JavaScript to showcase my skills and projects.
- Designed a user-friendly interface to enhance user experience and accessibility.
- Implemented responsive design techniques to ensure compatibility across various devices and screen sizes.