

EXPERIENCE

September 2025 Current	<div>Junior Software Engineer Pycentric</div> <div><ul style="list-style-type: none">• Deployed a highly available, containerized AWS architecture using a multi-AZ ALB and EC2 instances. Secured the application via API Gateway as a reverse proxy and AWS Cognito for authentication. Automated image deployment and management across the fleet using an enhanced CI/CD pipeline and AWS Systems Manager (SSM).• Implemented monitoring and observability using CloudWatch and (Prometheus, Grafana and Loki), tracking system logs, application metrics, and alerts to proactively detect and resolve issues.</div> <div>Flutter , FastAPI, Python, MongoDB, Docker, CI/CD,AWS , Nginx, CloudWatch, Grafana, Prometheus, Loki,Promtail, Linters, Agile</div>
October 2024 September 2025	<div>Graduate Software Engineer Pycentric</div> <div><ul style="list-style-type: none">• Developed scalable Flutter applications adhering to MVC standards and employing Riverpod for robust state management. Delivered key performance gains by implementing API optimization techniques leading to a faster more responsive user experience.• Delivered backend services using FastAPI and MongoDB, integrating seamlessly with Flutter-based client applications.• Engineered a robust, secure authentication submodule leveraging OAuth 2.0 support for third-party identity integration. The flow utilized JWTs for stateless session management and refresh tokens for long-term secure user authorization, minimizing token theft risk and maximizing security posture• Supported CI/CD workflows and DevOps operations through containerization, testing, and version control best practices.• Engineered a FastAPI backend automating image-to-3D model conversion using Wonder3D and Blender, implementing texture-preserving GLB export and optimizing the workflow for upload efficiency and reliability.</div> <div>Flutter , FastAPI, Python, MongoDB, MVC, Docker, Unit Testing, S3 bucket, CI/CD, Agile, Grafana ,Swagger, Linux</div>
August 2023 December 2023	<div>Java Tutor University of KwaZulu-Natal</div> <div><ul style="list-style-type: none">• Java Tutor for the school of Computer Science and Information Technology</div> <div>Graduated 21 Dec 2023</div>

EDUCATION

Bsc Computer Science & IT University of KwaZulu-Natal <u>Graduated : 21 Dec 2023</u>
High School Sunnydale Secondary School

SKILLS

PROGRAMMING LANGUAGES Python, Dart, Java, C++, C#, Javascript, ASP.NET, HTML ,CSS
PYTHON ECOSYSTEM FastAPI Streamlit, Typer/TyperCLI, Numpy, Pandas, threading, multiprocessing, Jupyter Notebook, Jupyterlab, Pytest, flake8, black
DART Flutter
VERSION CONTROL : Git , Github
MONITORING Grafana, Prometheus, Loki, Promtail, Amazon CloudWatch
DATABASES MongoDB, MySQL, Redis
CLOUD / COMPUTE Amazon EC2, Google Compute Engine (GCE), Google Cloud Run
INFRASTRUCTURE AS CODE : Cloud Formation, Terraform
CONTAINERISATION Docker , Docker compose
CI/CD GitHub Actions, Docker pipelines, Linters
API DESIGN & INTEGRATION RESTful APIs, JSON, Swagger, Postman, curl
TESTING : Unit Testing , Integration Testing
OPERATING SYSTEMS/IDEs Debian/Ubuntu Distros, Linux, Mac OS, Windows , Android, Android Studio, VS Code, PyCharm,
PRESENTATION/COMMUNICATION Jira, Confluence, Markdown , Office(Word , Excel , PowerPoint)

PROJECTS

Localoop | (Personal Project)

[Link: Localoop Demo](#)

A location-based community chat platform that connects people through the places they visit. Instead of generic social media, Localoop anchors conversations to real-world locations – cafés, parks, universities, and neighborhoods.

Core Features:

Location discovery, real-time messaging, and hyperlocal community channels.
Secure authentication via Google OAuth and email-based OTP verification.
Admin dashboard for content moderation and community analytics.

Tech Stack:

Flutter | FastAPI | MongoDB | Docker | Google Cloud

Key Implementations:

- WebSocket infrastructure enabling real-time two-way communication.
- JWT-based security with refresh token management.
- Cloud-ready architecture with CI/CD pipelines for staging and production deployment.

Status:

Currently live in a closed beta with early testers providing feedback before Play Store release.

Portfolio Website | [mrceo.netlify.app](#)

Built a responsive personal portfolio showcasing projects and skills, featuring interactive games and API integrations.

Developed using HTML, CSS, JavaScript, and Tailwind CSS.

GitHub: github.com/mthoko-n/web-portfolio

ACHIEVEMENTS

FOUNDATIONAL C# WITH MICROSOFT

[Certificate Link\(Click here\)](#).

FNB APP ACADEMY 2025 CERTIFICATE

Certificate in full-stack development

CERTIFICATE OF MERIT UKZN

Top 3 in Java (COMP102)

CERTIFICATE OF MERIT UKZN

Top 3 in C++ (COMP315)