




## Kgothatso Theko

 Software Engineer

 Edenvale, ZA |  +27 61 422 7501 |  [kgothatsotheko7@gmail.com](mailto:kgothatsotheko7@gmail.com)

 [LinkedIn](#) |  [GitHub](#)

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### SUMMARY

I'm a graduate with a Bachelor's degree in Computer and Information Science, specializing in Application Development. With hands-on experience in full-stack web and mobile development, I've built and deployed scalable applications using the MEAN stack, Ionic/React Native, C++/C#, Python and Kotlin.

I'm deeply passionate about solving real world problems through code, continuously learning new technologies, and staying ahead in areas like AI/ML, cyber security IoT, and cloud solutions. Whether it's building intuitive user experiences or architecting backend systems, I enjoy working across the stack to bring innovative ideas to life.

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### TECHNICAL SKILLS

- **Languages:** JavaScript (ES6+), TypeScript, C#, C++, Python, Kotlin, SQL, Java
- **Frameworks & Libraries:** Angular, React, Next.js, Node.js, Express.js, Ionic, React Native
- **Databases:** MongoDB, PostgreSQL, SQL Server
- **Tools & Platforms:** Salesforce, .NET, Microsoft 365, WordPress, Docker, Git/GitHub, RESTful APIs, CI/CD (GitHub Actions), Neutrinos low-code
- **Cloud & DevOps:** Firebase, AWS (EC2, S3) basics, Azure basics
- **Other:** Android Studio, Visual Studio, WPF, MVVM, Agile/Scrum

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### PROFESSIONAL EXPERIENCE

#### Cyber Security Intern

Hack Secure — April 2025 – May 2025

- Conducted vulnerability assessments and scanned open ports using Zenmap (Nmap GUI).
- Performed directory brute-force testing with Gobuster in Docker to find hidden paths.
- Captured and analyzed network traffic with Wireshark to extract plaintext credentials.

- Used sqlmap to identify and exploit SQL injection vulnerabilities on test websites.
- Simulated Cross-Site Scripting (XSS) attacks to assess frontend input security.
- Participated in Red Team CTF challenges, including “Pickle Rick” and “Red Team Fundamentals”.
- Developed a Python-based port scanner to identify open ports on given IP ranges.

### **C/C++ Programming Intern**

Cognifyz Technologies— March 2025 – April 2025

- Developed, optimized, and debugged C/C++ applications, ensuring efficient and scalable software solutions.
- Worked on real-world projects, implementing core programming concepts, data structures, and algorithms.
- Applied software development best practices to build clean, maintainable, and high-performance code.
- Shared progress and completed tasks through LinkedIn posts and project showcases.

### **Software Engineer Intern**

Neutrinos via Afrika Tikkun Services — May 2024 – Sep 2024

- Developed and maintained full-stack web applications using Neutrinos low-code platform built on Angular, Node.js, and MongoDB.
- Implemented RESTful APIs and integrated third-party services, reducing data retrieval latency by 30%.
- Containerized microservices with Docker and deployed to Azure improving scalability and reliability.
- Automated CI/CD pipelines with GitHub Actions, accelerating deployment frequency by 40%.

### **Full-Stack Web Development Candidate**

Afrika Tikkun Services — Nov 2023 – Apr 2024

- Designed and built dynamic web applications using MEAN stack (MongoDB, Express.js, Angular, Node.js).
- Collaborated in Agile team to deliver 3+ modules per sprint, achieving 95% on-time delivery.
- Optimized database queries and implemented indexing strategies, enhancing performance by 25%.

## **Call Interaction Agent (CIA)**

Blue Label Telecoms (Distribution - PTY) LTD — Mar 2023 – May 2023

- Provided technical support and troubleshooting to 50+ customers weekly, maintaining a 75% satisfaction rating.
  - Documented and resolved issues in a ticketing system, reducing average resolution time by 20%.
  - Communicated complex technical information to non-technical users, improving customer retention.
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## **PROJECTS**

### **SA-Digital Portal** (MEAN Stack, React Native (coming soon))

This platform is designed to centralize and manage South African citizens' data, provide digital IDs, driver's license and offer secure authentication features. The web portal allows users to register, manage their profiles, and download the mobile application for additional features like 3D digital ID, license and secure authentication.

<https://sa-digital-portal.web.app/>

### **Python Basic Port Scanner** (Python)

A lightweight and user-friendly Python script to scan open TCP ports on a given IP address within a specified port range. Useful for network diagnostics, security assessments, or educational purposes.

[KgothatsoTheko/basicScanner-EH-Project: Hack Secure internship red team ethical hacking project - Basic scanner to scan open ports on a given IP address and port range.](#)

### **Focused Network Mobile Application** (Ionic, MEAN Stack)

Communication and mentor application for [Focus Network](#); features include Real-time Communication, Event Management, and live audio session with Web Sockets. In closed testing:

Closed Testing -

<https://play.google.com/apps/testing/com.FourWMIInnovations.focusNetworkApp>

GitHub - [KgothatsoTheko/focusedNetworkApp: The mobile application for Focused Network](#)

### **C++ Applications** (C++)

C++ application tasks built during Cognifyz Technology internship. Windows console apps.

[KgothatsoTheko/C-Tasks: C++ tasks for Cognifyz Technology internship](#)

### **campusHub Mobile Application** (Ionic, MEAN Stack)

CampusHub is the official communication app for IIE Varsity College Waterfall students, designed to streamline campus life and enhance the student experience. In closed testing:

Closed Testing -

<https://play.google.com/apps/testing/com.fourWMInnovations.campusHub>

GitHub - [KgothatsoTheko/campus-hub](https://github.com/KgothatsoTheko/campus-hub)

### **1947 On Vilakazi Street Web Application** (Firebase, TypeScript & Angular)

Live web application showcasing famous 1947 on vilakazi street restaurant.

<https://nineteen47onvilakazistreet.web.app/>

### **FourWM Innovations Web Application** (TypeScript, SCSS, Angular & Firebase)

Live website showcasing official site of my software start-up company 4WM Innovations.

<https://fourwminnovations.web.app/>

### **FAN-Mobile Web Application** (TypeScript, SCSS, Angular & Firebase)

Live website showcasing FAN-Mobile for mobile hair salon bookings and advisement.

<https://fan-mobile.web.app/>

### **Portfolio Web Application** (TypeScript, SCSS, Angular & Firebase)

Live website showcasing my second version on my personal portfolio

<https://kgothatsotheko.web.app/>

### **cashFlow-v1 Mobile Application** (Kotlin, Android Studio)

Mobile application for personal finance tracking; features include expense categorization, budget planning, and local data persistence with Room.

[KgothatsoTheko/cashFlow-v1: Mobile application for a personal finance tracker](https://github.com/KgothatsoTheko/cashFlow-v1)

### **citizenHelper Desktop Application** (C#, Visual Studio & WPF)

Desktop application using MVVM architecture to manage citizen service requests; integrated SQL Server for data storage.

[KgothatsoTheko/citizenHelper: Windows Presentation Foundation \(WPF\) C# application of citizenHelper system](https://github.com/KgothatsoTheko/citizenHelper)

### **randomQuizApp Web Application** (JavaScript)

Dynamic quiz application with real-time scoring.

<https://kgothatsotheko.github.io/randomQuizApp/>

## EDUCATION

### **Bachelor of Computer & Information Science in Application Development**

Varsity College Waterfall — Jan 2022 – Dec 2024

- Graduated with Distinction.

### **Higher Certificate in Information Technology & Support Services**

Varsity College Waterfall — Jan 2021 – Dec 2021

- Graduated with Distinction.

### **National Senior Certificate**

Edenglen High School — 2016 – 2020

- Diploma endorsement; Half Colours in Athletics; Team Award in Rugby.

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## LICENSES & CERTIFICATIONS

Cyber Security Intern - <https://certificate.givemycertificate.com/c/19d7cec0-62f0-4e7c-80a3-a87927afca23>

Salesforce Trailblaze -

<https://www.salesforce.com/trailblazer/zb8t513fzr05ccz5s3?authuser=0>

What is Generative AI? -

[https://www.linkedin.com/learning/certificates/7a97e2d125e4e46fd1e1343fe3bc8f754db61750fbe5f75b43ceea1d21f2cf95?trk=share\\_certificate&lipi=urn%3Ali%3Apage%3Ad\\_flagship3\\_profile\\_view\\_base%3Bie34WdAiSy%2BR%2FA3YQNrRcg%3D%3D](https://www.linkedin.com/learning/certificates/7a97e2d125e4e46fd1e1343fe3bc8f754db61750fbe5f75b43ceea1d21f2cf95?trk=share_certificate&lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base%3Bie34WdAiSy%2BR%2FA3YQNrRcg%3D%3D)

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## PUBLICATIONS

**“The IIE’s Varsity College Waterfall Hackathon provides platform for students to explore and innovate”**, Midrand Reporter (The Citizen), December 13, 2024

[citizen.co](https://citizen.co)

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## LANGUAGES & INTERESTS

- **Languages:** English (Fluent), Tswana (Native), Zulu (Novice), Afrikaans (Novice)

- **Interests:** AI/ML, IoT, Cyber Security, Cloud Technologies, Continuous Learning, Open-Source Contributions