# SHILUVELO MAKHUBELE

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# SOFTWARE ENGINEER

I am a passionate and driven computer science graduate currently doing my honours degree specializing in software engineering, Computer security, and digital forensics. With hands on experience in both full-stack development and cybersecurity, I have developed a strong foundation in cloud computing, forensic readiness in IoT, and secure software design. My expertise extends to modern technologies such as React, cloud-based security, and digital forensic tools, which I apply to innovative solutions that prioritize security and user experience. I have a keen interest in developing secure, efficient, and visually appealing applications, whether through my ongoing digital forensic prototype for Apple's HomeKit ecosystem or my entrepreneurial venture building an e commerce website. My goal is to contribute to impactful projects that align with my technical background and problem-solving capabilities.

# **EDUCATION**

## **BscHons in Computer Science**

Majors: Software Engineering, Computer Security, Digital Forensics and Image processing, Software Education University of Pretoria-2024

## **Bsc Computer Science**

Majors: Listed in academic record University of Pretoria-2023

# PROFESSIONAL EXPERIENCE AND PROJECTS

# **NVS System Update Full stack Developer**

• With a group 4 including a senior developer we Updated the NVS system, a provider of pre-employment and background screening solutions.

Jan 2024 - Mar 2024

• Skills: Worked with React, .NET, and DevOps pipelines.

Enaex Nov 2023 - Feb 2024

# **Graduate Trainee**

- Participated as part of a bursary program to gain industry experience
- Skills:
  - Adaptability: Quickly learned processes and adjusted to new environments
  - Time Management: Prioritized tasks efficiently to meet deadlines
  - Communication, and teamwork

### Feb 2024 - Oct 2024

# **Honours Research Project**

# **Computer Science Honours Research**

- focuses on digital forensic readiness for Internet of Things (IoT) devices, specifically examining Apple's HomeKit ecosystem. This study develops techniques for gathering, securing, and analyzing digital evidence from IoT devices, with an emphasis on pre-incident collection using the prototype tool "SecureCollect" which I developed.
- Skills: React & Node.js, MongoDB, Python, Wireshark, Flask, API development

# COS720 Project Feb 2024 - Jul 2024

# **Computer Security Honours Project**

- I Built a cloud-based application with security features that showcased my understanding of cloudsecurity principles, I used AWS's EC2 instance as my cloud environment.
- Skills: AWS EC2,React,Node.js,DynamoDB,Logging,Monitoring,SSL/TLS setup AWS inspector,Encyption and hasing.

# Capstone Project Jan 2023 - Oct 2023

# Final year project

- We Built an Event Organizer app for a client(EPI-USE) a part of our final year computer science project.
- Skills: Full-stack development using Angular, Nodejs, Git/Github, MongoDB, AWS RESTful API creation, JWT, MongoDB data modelling, Event scheduling and user management, Unit and integration testing.
- · Application of the Software Development Lifecycle and Agile software development methodology

### **KEY COMPETENCIES**

# Programming Languages:

- Java
- C++
- Python
- Javascript
- SQL

# Frameworks:

- Angular/Ionic
- · React js
- Springboot

### Other tools and skills:

- Agile Methodologies
- Algorithms and data structures
- NodeJS
- Database Management
- Apis
- Aws ec2
- Ci/cd pipelines
- Git/Github
- Unit ,Integration and end-to-end testing
- Design patterns

# Soft Skills:

- Teamwork
- Problem Solving
- Critical Thinking
- Dependable
- Time management
- · Adaptability
- Ability to work under pressure

# **LANGUAGES**

- English- Proficient
- Xitsonga- Native