# Elsabé Ros | Curriculum Vitae

## Experience

Vitality Service Portal (2013)

Web development (Spring)

Discovery Holdings	
Senior Solutions Architect (Mobile and VA)	Jan 2023–Current
Solution design for projects related to the mobile application ecosystem and the D	Discovery Virtual Assistant,
investigating new tech, improve development process.	
Solutions Architect (Mobile)	May 2020–Jan 2023
Solution design involving mobile applications, investigating new tech, improve de- application and microservice development.	velopment process, mobile
Acting Mobile Architect	Jan 2019–Apr 2020
Solution design involving mobile applications, investigating new tech, improve deapplication and microservice development.	•
Senior Developer	Jul 2018–Dec 2018
Android development (Java, Kotlin), microservice development (Spring framimprove development process.	nework), solution design,
Dariel	
Senior Software Developer	2017–2018
ABSA - IRIS (Jun 2018) B2B (Spring)	
ABSA - PDLC (Oct 2017-May 2018) Web development (Spring and Angular), Atlassian APIs	
Dariel Graduate Application (Apr 2018-Jun 2018) Progressive Web app (Polymer), Firebase	
Entelect	
Senior Software Engineer	2015–2017
Software Engineer	2013–2015
Discovery Mobile application (2015-2017) Android development (Java), Backend development (Spring)	
DPM/AIA Mobile application (2013-2015) Android development (Java)	

University of Pretoria Tutor	2012
University of Pretoria Teaching Assisstant	2011
Formal Education	
University of Pretoria  MSc Computer Science, Research: Digital Forensic Readiness in Mobile Device Management Systems  University of Pretoria	2016–2018
BSc (Hons) Computer Science, Research: An information-gathering botnet for private cloud environments	2013–2014
University of Pretoria  BIS: Multimedia, Cum Laude	2010–2012
Certifications	
TOGAF Enterprise Architecture Practitioner The Open Group, Credential ID: 194853	October 2025
Certified Spring Professional Pivotal,	November 2016
Courses	
Hardware Security Coursera, Verified Certificate	May 2015
Cryptography Coursera, Verified Certificate	April 2015
Software Security Coursera, Verified Certificate	April 2015
Usable Security Coursera, Verified Certificate	March 2015
Languages	

#### Languages

 $\textbf{English} \colon \mathsf{Professional}$ 

Afrikaans: Home language

### **Publications**

Elsabe Ros. Digital forensic readiness in mobile device management systems. Master's thesis, University of Pretoria, South Africa, 2019.

#### Masters thesis

Title: Digital Forensic Readiness in Mobile Device Management Systems

Supervisor: Professor HS Venter

**Description**: Mobile devices have become very popular, and virtually everyone owns a smart device. As more employees became owners of smart devices, the organisations were put under pressure to allow employees to use their smart devices for work purposes, or alternatively provide employees with smart devices.

Most organisations opted for a Bring Your Own Device policy, where employees use their own smart devices for work purposes, with the organisation reimbursing some of the costs. Adopting such a policy introduced risks into the organisations, since the organisations do not own and do not have direct control over employees' personal devices.

One of the most widely used solutions to this problem is Mobile Device Management (MDM) software, which is installed on employees' devices and prevent them from taking actions that may be harmful to the organisation.

This leads us to the problem statement of this research. Since MDM systems are purely preventative and devices are not owned by the organisation, it is expensive and sometimes impossible for organisations to retrieve potential evidence from the devices when an incident occurs.

This research proposes a model to solve this problem by introducing a digital forensic readiness component into an MDM system. Adding digital forensic readiness to an existing MDM solution reduces costs by collecting evidence when suspicious activity is detected, reducing investigation times and legal costs involved in collecting evidence.

A prototype was created to show that the proposed model could be implemented in practice. The prototype shows how this solution can be utilised to collect data from devices and utilise it in an investigation.

Finally, the research and prototype are critically evaluated, and the benefits and shortcomings of such a solution are presented. The author also addresses privacy concerns arising from the data collection component.