

# Curriculum Vitae



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Meerensee, Richards Bay. Kwazulu Natal

Citizen of the Republic of South Africa.

Drivers License Code AB

# Michael van Niekerk

## » PROFESSIONAL EXPERIENCE

### Company

Saryx Engineering Group (SEG)  
/ Terminal Control Systems (TCS) Division at RBCT  
/HSEC Online® DevOps Team  
/Saryx Engineering Group (SEG) Control and  
Automation Projects Division  
[info@saryx.com](mailto:info@saryx.com)

### Company Profile

Specialize in integration solutions for Industrial  
Control and Automation, ICT, Rail Monitoring, and  
Document Management and Compliance.

### Period

November 2023 to date

### Role

Full Stack Software Development and Data Science  
Solutions Architect

### Report to

DataOps Manager – Andre Maakal  
DevOps Manager – Lourence Gerber  
Control and Automation Manager – Roland Vervey

### Duties

Full Stack Software Development, Data Science  
Solutions Development

### Current Projects

Improvements and Upgrades/Maintenance to the  
Current and Future Tech Stack of HSEConLINE® and  
SkillUp Training TMP.

### Achievements

#### DRD GOLD 60MW SOLAR POWER PLANT DAILY REPORT

#### Full Stack Software Development and Data Science

- **Designed, Developed, and Implemented:**
  - **Calculation Engine** and **SSRS Report** that provides the necessary analytics and energy/cost calculations for the **Daily Costing and Energy Generation Report** for **DRD Gold's 60MW Solar Power Plant** in Gauteng, South Africa.
- The **DRD Gold Daily Report** includes **Power Generation Data, Operational Data, Environmental Data, Grid Connection Data, Financial Data and KPIs.**

#### RBCT TCS COMMUNICATIONS STATISTICAL ANALYSIS AND EARLY WARNING SYSTEM

#### Full Stack Software Development and Data Science

- **Designed, Developed, and Implemented :**
  - **Software Solution** that uses GIS and Geospatial data to provide a **Satellite Map** of the site with key locations and landmarks searchable on the map to aid Emergency Services with navigating the site.
  - **SSRS Report** that provides a **Site Map** with searchable landmarks and key locations that can be printed and provided to Emergency Services to aid them with navigating the site.
  - **SSRS Report** that provides a **Plant Overview SCADA System** for any given time over the past 90 days.
  - **Software Solution** that functions as an **Early Warning System** and **Expert System** providing real time comms evaluation using statistical modeling and data analysis of the client's communication systems to prevent unexpected plant-wide shut down due to communications failure.
  - **Dashboard** that provides real-time and historical analytics, offering graphical insights into the health of the **Communications Systems.**

## Company

**Bingelela Consulting Professionals (BCP)**

**/Specialist Procurement Division**

[www.bingelela.com](http://www.bingelela.com)

## Company Profile

Project Management,  
Quantity Surveyors,  
Cost Accounting,  
Contracting,  
Mediation and Arbitration,  
and Specialist Procurement Services.

## Period

March 2022 – October 2023

## Role

**Consultant IT and Program Management**

## Report to

**Project Manager**

**Divisional Manager**

## Duties

IT Consultant, Data Analyst, Systems Analyst, DB Analyst, Business Analyst, DevOps Consultant, IT Security Consultant, and IT support.

Manufacturing and System Process Flow and Optimization

Responsible for logistics and support when required.

Project Management assistance on the program, risk assessment, procurement, and site administration.

## Achievements

### Process/ Analysis

- Contributed to the determination of the Manufacturing Process.
- Created process and instrumentation diagrams (P&ID) for the pilot plant.
- Contributed to plant layout optimization.
- Implemented risk management strategies based on reliability principles to minimize failures.

### Project and Risk Management

- Updated and maintained procurement plans.
- Compiled and maintained project programs.
- Compiled and maintained the risk register.
- Conducted site visits and provided support to contract managers and project managers.

### ICT support

- Managed cloud storage and document systems.
- Provided software licensing and support (Office 365 Business).
- Diagnosed and resolved hardware issues.
- Sourced, reviewed, and recommended data information systems.
- Analyzed historical and current procurement data and created visual representations of over 50 suppliers.
- Assisted staff, consultants, and clients with IT-related queries.
- Ensured internet security.
- Proficient in programming languages: MS Visual Studio .Net Framework, Visual Basic, Java OOP, C#, C++, SQL, Python, VBA

### Programming Languages Utilized:

- **Backend:** C#, VBA, Java OOP, Python, C++
- **Data:** SQL
- **Frameworks:** MS Visual Studio .NET

Contributed to the following projects:

### **BOTÉ INDUSTRIES - Hand-Built Rubber Pipe Manufacturing Plant:**

Duration:

- Feb 2022 to Apr 2023

Scope:

- Conduct a market feasibility study.
- Design the Pilot Plant.
- Manage the construction and Commissioning of the Pilot Plant.
- Complete the Concept design and 70% cost estimate of the Main production plant (47000m<sup>2</sup>).
- Estimated project value: ±R200 million.

### **South32- Procurement Spend Optimization and Cost Savings:**

Duration:

- Sep 2020 to Sep 2022

Scope:

- Analyzed procurement expenditure for 50+ suppliers, identified cost- saving opportunities, and conducted market testing.
- Review and improve material lists.

Create an electronic form for capturing vendor assessment information.

Company		Achievements
Café Schatzi		Growing with the start-up from a humble beginning, staying with the startup through the COVID-19 lockdown, and helping the startup to grow and thrive after surviving the forced shutdown of 2020.
Company Profile		
40-seater Coffee Shop		
Period		
Dec 2019 to Feb 2022		
Role		<ul style="list-style-type: none"><li>- Barista [Dec 2019 – Feb 2022) Operate and maintain manual Astoria 2 Group coffee machine. Grinding to cup Serving over <u>40 000</u> cups of freshly made coffee to date with less than 1% return, and consistent quality.</li><li>- Assistant Manager [July 2020 – Feb 2022]</li><li>- Customer interaction and problem solving</li></ul>
Barista	Assistant Manager	
Report to		
Owners		
Duties		
Barista		
Supervising,		
Staff scheduling & training seasonal employees.		
Operates a variety of specialized food service equipment,		
Managed and is capable of teaching cash register operation (Point of Sale: GAAP)		
Cashing up and cash control.		
Responsible for cleaning and general maintenance of the facility and equipment.		
Assume responsibility in the absence of the Café Owner.		

## » Studies: Projects Portfolio

<b>Microsoft Certifications</b>	<b>Microsoft Certified: Azure Data Fundamentals</b>
	Credential ID: 545002E1A6407718
	Certification number: A2C02F-9625W1
	Earned on: January 16, 2024
	<b>Microsoft Certified: Azure Fundamentals</b>
<b>Database Design and Implementation -BSc IT 2023</b>	Credential ID: F45691B0C2F4BE8F
	Certification number: 9DCF55-B64713
	Earned on: December 6, 2023
	Facilitate the Analysis, Design, Build, and Implementation of a Database System that will allow the company to effectively process and store data of their operations.
	<u><b>Skills/Techniques Applied</b></u>
	<ul style="list-style-type: none"> <li>• Create, Implement, and Modify new or existing Database Designs, manage possible problems, and extract necessary information from Databases using SQL.</li> </ul>
	<ul style="list-style-type: none"> <li>• Have knowledge of, and insight into, the difference between file systems and databases, the relational database model, entity-relationship modeling, normalization of database models, database design, and SQL.</li> </ul>

<b>System Analysis and Design</b> <b>-BSc IT 2022</b>	<p><b>Analyse, Design, and Implement of an Information System (Systems Development Life Cycle).</b></p> <p><b><u>Skills/Techniques Applied</u></b></p> <ul style="list-style-type: none"> <li>• Applied insight into the phases and techniques of the Systems Development Life Cycle.</li> <li>• Applied the tools and techniques to support system analysts and project managers during the planning, analysis, and design of an information system.</li> <li>• Apply the above knowledge and techniques to a computerized system's planning, analysis, and design.</li> <li>• Model ideas into visual representations to be translated into real-life systems.</li> <li>• Manage a software project and be able to apply creative skills when developing a computerized system and solving associated problems.</li> <li>• Work effectively on a team to develop a system.</li> <li>• Compile and present a project in writing, and treat customers professionally.</li> <li>• Apply computer resources ethically and responsibly when approaching a project.</li> </ul>
<b>Entrepreneurial Opportunities (Problem-Solving for Managers)</b> <b>-BSc IT 2022</b>	<p><b>Analyse a Case Study provided and use the Creative Problem-Solving Process to come up with a viable Solution.</b></p> <p><b><u>Skills/Techniques Applied</u></b></p> <ul style="list-style-type: none"> <li>• Detailed knowledge and ability to examine the external environment for opportunities and threats and relate it to the internal environment.</li> <li>• Identify and apply creative problem-solving as a managerial competency.</li> <li>• Analytical and evaluative skills by providing effective solutions to heuristic problems in the application of creative problem-solving techniques.</li> <li>• Effective solutions to problems within an ethical framework applicable to creative problem-solving.</li> <li>• Display Individual and team-based presentation and communicative skills by using the appropriate information technology.</li> </ul>
<b>Information Security</b> <b>-BSc IT 2022</b>	<p><b>Identify, Analyze, and Evaluate the various Information Security Threats in the modern world and propose controls to counteract these threats.</b></p> <p><b><u>Skills/Techniques Applied</u></b></p> <ul style="list-style-type: none"> <li>• List, identify, and discuss the main information and cyber security concepts. These include concepts such as confidentiality, integrity, availability, authentication, privacy, secure software development, backup and recovery, and legal and ethical issues.</li> <li>• Identify and describe security threats in the world we live in and recognize and propose appropriate controls to counteract these threats.</li> <li>• Identify, discuss, and understand security threats and vulnerabilities in a computerized environment such as hardware errors, software failures, human errors, malicious intent, and natural causes.</li> <li>• Act according to the code of conduct of the IT profession towards clients and use computer resources ethically and responsibly.</li> </ul>
<b>Communication Skills</b> <b>-BSc IT 2022</b>	<p><b>Prepare a Software Requirements Document and User Manual Document for a Software Solution that will be designed and implemented in a Case Study.</b></p> <p><b><u>Skills/Techniques Applied</u></b></p> <ul style="list-style-type: none"> <li>• Analyse and translate a user's description of a real-world problem into system requirements for a software solution.</li> <li>• Have good/healthy interpersonal interaction with colleagues and work together.</li> <li>• Have professional meetings so that all can contribute positively to the tender.</li> <li>• Able to illustrate/demonstrate knowledge and carry it over to another individual or group of individuals.</li> <li>• Stephen Covey – 7 Habits of Highly Effective People</li> <li>• David MacMurray – Power Tools for Technical Writing</li> </ul>

## » Languages

ENGLISH

Read, Write Speak

AFRIKAANS

Read, Write Speak

## » Formal Education/ Qualification

2025 – 2026	<b>BSc Honors Information Technology (Data Science &amp; AI)</b> EDUVOS Online University.
2021 - 2024	<b>BSc Information Technology</b> NWU Unit for Open Distance Learning Potchefstroom Campus.
2017 - 2020	<b>BEng Mechanical Engineering</b> NWU Potchefstroom Campus.
2016	<b>Grade 12 (Matric) IEB</b> at Grantleigh High School.

## » Skills

### **Program Languages:**

JS, HTML, TS, Angular, JQuery, CSS, C#, NodeJS, Visual Basic, JAVA, SQL, SSR Report Services, Python

### **Frameworks:**

.Net Core, Bootstrap, MVC, API

### **Computer Skills:**

Excel, Word, PowerPoint, Outlook, Teams, SAP/JDE, MS Project, QGIS, Blender, FreeCAD, NX, AutoCAD, Git etc.

### **Other Skills:**

- GAAP Point of Sale
- Selling of Concepts
- Report Writing and Communication
- Analytical, detailed.
- Conflict Handling
- Out-of-the-Box Thinking/Problem Solver
- Management Liaising
- Project Management
- Statistical Analysis and Reporting
- Financial Accounting Analysis and Reporting
- Business Management Analysis and Reporting
- CAD 3D Modeling/Rendering
- P & ID Drafting

## » Volunteering

2019 -current	<b>Member of Community Police Sub-Forum: Meerensee</b> Established in terms of and subject to the provisions of sections 8 to 23 of the South African Police Service Act, (Act no 68 of 1995), the objectives of the CPF, are to establish and maintain a partnership with SAPS Community Policing Forum as a platform where community members, organizations (CBO's, NGO's, Business, FBO's, youth organizations, women organizations, SGB's), other relevant stakeholders (provincial government, local government, traditional authority, and parastatals) and the police meet to discuss and ways to prevent crime.	Cause Civil Rights & Social Action
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## >> REFERENCES

Company Name	SARYX ENGINEERING GROUP (SEG)		
Contact First Name & Surname	Mr. Andre Maakal	Job Title / Position	DataOps Manager (Terminal Control Systems)
Contact Telephone Number	035 628 0102	OR Cellphone	083 327 0800
Email	andre@saryx.com		
Reference Type	Professionally – Reported to	Can contact the above reference?	Yes

Company Name	BINGELELA CONSULTING PROFESSIONALS		
Contact First Name & Surname	Mr. Henk van Niekerk	Job Title / Position	PARTNER (Specialist Procurement Division)
Contact Telephone Number	035 628 0102	OR Cellphone	083 454 7968
Email	henk@bingelela.com		
Reference Type	Professionally – Reported to	Can contact the above reference?	Yes

Company Name	EXIGENT (INDUSTRIAL ENGINEERING)		
Contact First Name & Surname	Mr. Johan Adam	Job Title / Position	PARTNER
Contact Telephone Number		OR Cellphone	082 654 2437
Email	Johan.Adam@exigent.co.za		
Reference Type	Professionally – Reported to	Can contact the above reference?	Yes

Company Name	SMEGSTAR (BOTE INDUSTRIES)		
Contact First Name & Surname	Mr. Tebogo Masibuko	Job Title / Position	PARTNER
Contact Telephone Number		OR Cellphone	083 744 7253
Email	tebogo@smegstar.co.za		
Reference Type	Professionally – Reported to	Can contact the above reference?	Yes

Company Name	Café Schatzi		
Contact First Name & Surname	Tersia van Niekerk	Job Title / Position	OWNER
Contact Telephone Number	035 628 0101	OR Cellphone	083 460 7591
Email	cafeschatzi@hello.com		
Reference Type	Professionally – Reported to	Can contact the above reference?	Yes

Company Name	GRANTLEIGH COLLEGE		
Contact First Name & Surname	Mr. Shaun McMurtry	Job Title / Position	Headmaster
Contact Telephone Number	035 580 1581	OR Cellphone	
Email	Shaun.McMurtry@grantleigh.co.za		
Reference Type	Education	Can contact the above reference?	Yes