# Curriculum Vitae

# Michael van Niekerk

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✉ michael.vn98.16@gmail.com

https://github.com/Michaelvn2420?tab=repositories
https://www.linkedin.com/in/michael-van-niekerk-4852a3160/
https://codepen.io/Michael-van-Niekerk-the-encoder/pen/YzMbPao

📍 Meerensee, Richards Bay. Kwazulu Natal

Citizen of the Republic of South Africa.
Drivers License Code AB

## » PROFESSIONAL EXPERIENCE

### Company

**Saryx Engineering Group (SEG)**

**/ Terminal Control Systems (TCS) Division at RBCT**

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 - Intern**

Report to

**DataOps Manager – Andre Maakal**

Duties

Full Stack Software Development, Data Science Solutions Development

Achievements

**RBCT TCS COMMUNICATIONS STATISTICAL ANALYSIS AND EARLY WARNING SYSTEM**
**Full Stack Software Development and Data Science**

- **Designed**, **Developed**, and **Implemented** a **Software Solution** that uses **Statistical Modeling** and **Data Analysis** of **Data** gathered from the client's **Communication Systems.**
- The solution aims to provide a real-time evaluation of the Comms Systems Health as well as function as an **early warning system via automated email** when the algorithm detects a **high probability** of an **unexpected plant-wide shutdown** due to **communications failure**.

- **Designed, Developed**, and **Implemented** a **Dashboard** that provides real-time and historical **analytics**, offering **graphical insights** into the **Health** of the **Communications Systems.**
- The dashboard includes a **warning system** to detect strain that may lead to **unexpected, forced shutdowns of plant machinery.**
- Successfully integrated both solutions into the existing **API** and **DBMS** of the client.

**Programming Languages Utilized:**
- **Front End:** JS, HTML, TS, Angular, JQuery, CSS
- **Backend:** C#, NodeJS, Visual Basic
- **Data:** SQL, SSR Report Services
- **Frameworks:** Bootstrap, API, MVC, .NetCore

### Company

**Bingelela Consulting Professionals (BCP)**

**/Specialist Procurement Division**

www.bingelela.com

Company Profile

Project Management,

Quantity Surveyors,

Cost Accounting,

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.

Contracting,

Mediation and Arbitration,

and Specialist Procurement Services.

**Period**

March 2022 to date

**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.

- 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 ($47000m^2$).
- 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**

**Café Schatzi**

Company Profile

40-seater Coffee Shop

Period

Dec 2019 to Feb 2022

Role

**Barista          Assistant Manager**

Report to

**Owners**

Duties

Barista

Supervising,

Staff scheduling, & training seasonal employees.

Achievements

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.

- Barista [Dec 2019 – July 2020)
  Operate and maintain manual Astoria 2 Group coffee machine.
  Grinding to cup
  Serving over 20 000 cups of freshly made coffee to date with less than 1% return, and consistent quality.

- Assistant Manager [July 2020 – Feb 2022]

- Customer interaction and problem solving

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

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|---|---|
| **Microsoft Certifications** | **Microsoft Certified: Azure Data Fundamentals**<br>Credential ID: 545002E1A6407718<br>Certification number: A2C02F-9625W1<br>Earned on: January 16, 2024<br>**Microsoft Certified: Azure Fundamentals**<br>Credential ID: F45691B0C2F4BE8F<br>Certification number: 9DCF55-B64713<br>Earned on: December 6, 2023 |
| **Database Design and Implementation -BSc IT 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.<br><div align="center">**Skills/Techniques Applied**</div><ul><li>Create, Implement, and Modify new or existing Database Designs, manage possible problems, and extract necessary information from Databases using SQL.</li><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> |
| **System Analysis and Design -BSc IT 2022** | Analise, Design, and Implement of an Information System (**Systems Development Life Cycle**).<br><div align="center">**Skills/Techniques Applied**</div><ul><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> |
| **Entrepreneurial Opportunities (Problem-Solving for Managers) -BSc IT 2022** | Analise a Case Study provided and use the Creative Problem-Solving Process to come up with a viable Solution.<br><div align="center">**Skills/Techniques Applied**</div><ul><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> |

| | |
|---|---|
| **Information Security**<br>**-BSc IT 2022** | To Identify, Analyze, and Evaluate the various Information Security Threats in the modern world and propose controls to counteract these threats. |

<div align="center">

**Skills/Techniques Applied**
</div>

- 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.
- Identify and describe security threats in the world we live in and recognize and propose appropriate controls to counteract these threats.
- 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.
- Act according to the code of conduct of the IT profession towards clients and use computer resources ethically and responsibly.

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|---|---|
| **Communication Skills**<br>**-BSc IT 2022** | To Prepare a Software Requirements Document and User Manual Document for a Software Solution that will be designed and implemented in a Case Study. |

<div align="center">

**Skills/Techniques Applied**
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- Analise and translate a user's description of a real-world problem into system requirements for a software solution.
- Have good/healthy interpersonal interaction with colleagues and work together.
- Have professional meetings so that all can contribute positively to the tender.
- Able to illustrate/demonstrate knowledge and carry it over to another individual or group of individuals.
- Stephen Covey – 7 Habits of Highly Effective People
- David MacMurray – Power Tools for Technical Writing

## » Languages

| | |
|---|---|
| ENGLISH | Read, Write Speak |
| AFRIKAANS | Read, Write Speak |

## » Formal Education/ Qualification

2021- Date
In process

Due to be
completed in
2024

**BSc Information Technology** NWU Unit for Open Distance Learning Potchefstroom Campus. **Results to date (68% Average)**

| Qualification Program : | 2HA H01 BSC IN INFORMATION TECHNOLOGY | |
|---|---|---|
| **Modules** | **Module Mark** | **Result** |
| STTN 1 11 DESCRIPTIVE STATISTICS | 91 | Distinction |
| CMPG 3 21 ADVANCED DATABASES | 84 | Distinction |
| BMAN 2 23 PROBLEM SOLVING FOR MANAGERS | 80 | Distinction |
| ACCS 1 21 FINANCIAL ACCOUNTING (SPECIAL) | 78 | Distinction |
| ACCS 1 11 FINANCIAL ACCOUNTANCY (SPECIAL) | 76 | Distinction |
| CMPG 1 11 INTRODUCTION TO COMPUTING AND PROGRAMMING | 75 | Distinction |
| CMPG 2 15 INFORMATION SECURITY | 75 | Distinction |
| CMPG 2 22 DATA ANALYTICS II | 75 | Distinction |
| CMPG 1 22 USER INTERFACE PROGRAMMING I | 71 | Passed |
| BMAN 1 11 INTRODUCTION TO BUSINESS MANAGEMENT | 69 | Passed |
| STTN 1 21 INTRO STAT INFERENCE I | 69 | Passed |
| CMPG 2 21 DATA STRUCTURES AND ALGORITHMS | 68 | Passed |
| CMPG 3 12 DECISION SUPPORT SYSTEMS 1 | 68 | Passed |
| CMPG 2 12 APPS AND ADVANCED USER INTERFACE PROGRAMMING | 66 | Passed |
| CMPG 2 14 COMMUNICATION SKILLS | 65 | Passed |
| CMPG 3 22 DECISION SUPPORTS SYSTEMS 2 | 64 | Passed |
| CMPG 3 11 DATABASES | 62 | Passed |
| CMPG 2 11 OBJECT ORIENTED PROGRAMMING | 58 | Passed |
| CMPG 2 13 SYSTEM ANALYSIS AND DESIGN 1 | 57 | Passed |
| CMPG 3 13 ARTIFICIAL INTELLIGENCE | 57 | Passed |
| CMPG 2 23 SYSTEM ANALYSIS AND DESIGN II | 56 | Passed |
| MTHS 2 25 DISCRETE MATHEMATICS | 54 | Passed |
| CMPG 1 21 STRUCTURED PROGRAMMING | 52 | Passed |
| CMPG 3 15 COMPUTER NETWORKS | 50 | Passed |
| CMPG 3 23 IT DEVELOPMENTS | 0 | IN PROGRESS |
| CMPG 3 24 OPERATING SYSTEMS | 0 | IN PROGRESS |

**Modules Currently Busy with**
CMPG 3 23 IT DEVELOPMENTS
CMPG 3 24 OPERATING SYSTEMS

| | |
|---|---|
| 2017 – 2020<br>Incomplete<br><br>Could not be<br>completed<br>due to a lack<br>of funds.<br><br>**Completed<br>50% of the<br>course.** | **BEng Mechanical Engineering** NWU Potchefstroom Campus.<br>**59% average -** (NOT COMPLETED) |

| Qualification Program : | 7CJ K01 BENG IN MECHANICAL ENGINEERING | |
|---|---|---|
| **Modules** | **Module Mark** | **Result** |
| ITRW 1 12 INTRODUCTION TO COMPUTERS AND PROGRAMMING | 91 | Distinction |
| INGM 2 24 COMPUTER METHODS | 76 | Distinction |
| WVIS 3 21 SCIENCE, TECHNOLOGY AND SOCIETY | 72 | Passed |
| WVTS 2 11 UNDERSTANDING THE TECHNOLOGICAL WORLD | 71 | Passed |
| ITRW 1 15 PROGRAMMING FOR ENGINEERS I (C++) | 69 | Passed |
| INGM 2 11 STRENGTH OF MATERIALS I | 64 | Passed |
| MTHS 1 21 INTRODUCTORY ALGEBRA AND CALCULUS II | 60 | Passed |
| NPHY 1 11 BASIC PHYSICS I | 56 | Passed |
| INGM 1 22 MATERIALS SCIENCE I | 55 | Passed |
| CHEM 1 11 INTRODUCTORY INORGANIC & PHYSICAL CHEMISTRY | 54 | Passed |
| INGM 2 12 ENGINEERING MATERIALS I | 54 | Passed |
| MTHS 1 11 INTRODUCTORY ALGEBRA AND CALCULUS I | 54 | Passed |
| INGM 1 21 ENGINEERING GRAPHICS II | 52 | Passed |
| INGM 1 11 ENGINEERING GRAPHICS I | 51 | Passed |
| APPM 1 21 STATICS AND MATHEMATICAL MODELLING | 50 | Passed |
| EERI 1 24 ELECTROTECHNIQUE I | 50 | Passed |
| FIAP 1 72 PROFESSIONAL PRACTICE 1 | 50 | Passed |
| FIAP 2 72 FUNDAMENTAL ENGINEERING APPLICATION PROGRAMME | 50 | Passed |
| FSKS 1 11 MECHANICS, OSCILLATIONS, WAVES & THEORY OF HEAT | 50 | Passed |
| NPHY 1 21 BASIC PHYSICS II | 50 | Passed |
| INGM 2 71 WORKSHOP PRACTICE VACATION TRAINING | 0 | Attended Satisfact. |

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|---|---|
| Dec 2016<br>completed | **Grade 12 (Matric) IEB** at Grantleigh High School.<br>**75%** average |

| CODE | DATE | SUBJECT | PERCENTAGE | ACHIEVEMENT<br>LEVEL |
|---|---|---|---|---|
| N12AFRF | Nov 2016 | AFRIKAANS FIRST ADDITIONAL LANGUAGE | 88 | 7 |
| N12ENGH | Nov 2016 | ENGLISH HOME LANGUAGE | 75 | 6 |
| N12INTE | Nov 2016 | INFORMATION TECHNOLOGY | 71 | 6 |
| N12LIFO | Nov 2016 | LIFE ORIENTATION | 80 | 7 |
| N12LISC | Nov 2016 | LIFE SCIENCES | 78 | 6 |
| N12MATH | Nov 2016 | MATHEMATICS | 72 | 6 |
| N12PHSC | Nov 2016 | PHYSICAL SCIENCES | 62 | 5 |

## » Skills

| Current | | |
|---|---|---|
| | - Program Languages: JS, HTML, TS, Angular, JQuery, CSS, C#, NodeJS, Visual Basic, JAVA, SQL, SSR Report Services, Python | >2 years |
| | - Frameworks: .Net Core, Bootstrap, MVC, API | >2 years |
| | - Computer Skills (Excel, Word, SAP/JDE, MS Project, Outlook, Internet) | >5 years |
| | - GAAP Point of Sale | >2 year |
| | - Selling of Concepts | >2 years |
| | - Report Writing and Communication | >3 years |
| | - Analytical, detailed. | >2 years |
| | - Conflict Handling | >3 years |
| | - Out-of-the-Box Thinking/Problem Solver | >2 years |
| | - Management Liaising | >2 years |
| | - Project Management | >1 year |
| | - Statistical Analysis and Reporting | >2 years |

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|---|---|---|
| - Financial Accounting Analysis and Reporting | | >2 years |
| - Business Management Analysis and Reporting | | >2 years |
| - CAD 3D Modeling/Rendering | | >2 years |
| - P & ID Drafting | | |

## » Volunteering

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|---|---|---|
| 2019 -current | **Member of Community Police Sub-Forum: Meerensee** | Cause Civil Rights & Social Action |
| | 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. | |

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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 |