

# CURRICULUM VITAE

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**Marital Status** Married  
**Languages** English, Afrikaans (Speak, read & write)

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## QUALIFICATIONS

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### Tertiary Education

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| MSc     | Atmospheric Science                    | 2001 - 2003 | Wits University |
| BSc Hon | Geography and Environmental Management | 2000        | RAU (UJ)        |
| BSc     | Geography and Informatics              | 1997 - 1999 | RAU (UJ)        |

### Other Qualifications

- TUV accredited lead auditor for ISO14000
- Introduction to ArcGIS II – GIMS – Midrand (November 2007)
- ADMS Urban Modelling Course – Cambridge Environmental Research Consultants (CERC) – Johannesburg (2005)
- ADMS 3 Modelling Course – Cambridge Environmental Research Consultants (CERC) – Johannesburg (2006)

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## PROFESSIONAL EXPERIENCE

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**Job Title** : Managing Director  
**Employer Name** : Rayten Engineering Solutions cc  
**Date Employed** : December 2009 - Current

## COMPLETED AND CURRENT PROJECTS

- Air Quality Impact Assessment for proposed diamond mine in Botswana.
- Air Quality Impact Assessment for proposed ethanol plant in Jozini.
- Air Quality Impact Assessment for glass manufacturing company.
- Air Quality Impact Assessments for several gold mines.
- Air quality impact assessment for proposed chrome mine.
- Air quality impact assessment for proposed power station in Mozambique.
- Air quality impact assessment for andalusite mine in North-West Province.
- Air quality impact assessment for bio-fuel plant near Grahamstown.
- Air Quality impact assessment for dolomite mine near Meyerton.
- Air Quality impact assessment for cattle feedlot.
- Air Quality impact assessment for a steel manufacturing company in Vereeniging.
- Professional review of air quality impact assessment for proposed charcoal plant facility.
- Review of air quality impact assessment for proposed truck stop and filling station.
- Indoor air quality impact assessment for Beverage Company.
- Indoor air quality impact assessment for polymer recycling plant.
- Indoor air quality impact assessment for several commercial offices.
- Atmospheric dispersion modelling for gold mines.
- Atmospheric dispersion modelling for open cast coal mines.
- Atmospheric dispersion modelling for diamond mines.
- Atmospheric dispersion modelling for proposed chrome mine.
- Atmospheric dispersion modelling for asphalt plant in Boksburg.
- Atmospheric dispersion modelling for charcoal plant.
- Atmospheric dispersion modelling calcine waste disposal site.
- Atmospheric dispersion modelling for steel manufacturing company.
- Atmospheric dispersion modelling medical waste incinerator.
- Verification of dispersion modelling results for a proposed medical waste incinerator.
- Emission inventory for Fezile Dabi District Municipality.
- Emission inventory for the eastern customer care areas of the Ekurhuleni Metropolitan Municipality.
- Atmospheric Emission Licence for glass manufacturing plants.
- Atmospheric Emission Licence for chrome mine in Limpopo Province.
- Atmospheric Emission Licence for bio fuel plant near Grahamstown.
- Atmospheric Emission licenses for several Foundries and Galvanizing plants in and around Johannesburg.
- Ambient Air Quality Monitoring and analyses for diamond mines.
- Ambient Air Quality Monitoring and analyses for open cast coal mines.
- Ambient Air Quality Monitoring and analyses for several gold mines.
- Ambient particulate monitoring and maintenance of equipment for gold mining company.

- Ambient Air Quality Monitoring using passive badges for an industrial complex in Centurion.
- Dust Fallout Monitoring and analyses for several gold mines.
- Dust Fallout Monitoring and analyses for coal mine.
- Dust Fallout Monitoring for proposed diamond mine.
- Dust Fallout Monitoring for a proposed foundry.
- Stack Monitoring for a Gold Mine near Westona.
- Air Quality Section of Environmental Management Plan for Mogale City Local Municipality.
- Air Quality educational manual for primary school learners.
- Macro and Micro siting of ambient air quality monitoring equipment for Waterberg Priority Area.
- Macro and Micro siting of ambient air quality monitoring equipment for Fezile Dabi District Municipality.
- Macro and Micro siting of ambient air quality monitoring equipment for Bonjanala District.
- Installation of meteorological stations and ambient air quality monitoring equipment for various industries, mining companies and government departments.
- Installation of lattice meteorological masts and concrete plinths for various industries and government departments.
- Installation of weather station, lattice meteorological mast and concrete plinths for a gold mining company.
- Professional opinion on abatement technology for flat glass manufacturer and steel manufacturing company.
- Professional opinion for proposed egg packaging plant.
- Professional opinion for waste disposal landfill site.
- Professional opinion and structural analysis of communication towers.
- Remote data acquisition and management for various clients.
- Soil Sample Analysis (for heavy metals) for a Gold Mine.
- Water meter calibration and supply of water meter monitoring systems for mining companies.
- Environmental legal compliance audit for steel manufacturing company.

**Job Title** : Director  
**Employer Name** : Gondwana Environmental Solutions (Pty) Ltd  
**Date Employed** : September 2004 to December 2009

## RESPONSIBILITIES

- Environmental Management
- Company financial administration
- Staff management
- Project management and co-ordination
- Air quality monitoring, analysis and reporting
- Dust fallout monitoring, analysis and reporting
- Emissions inventory compilation
- Dispersion modelling
- Air quality impact assessments
- Air Quality Management Plans
- Geographic Information Systems

- Technical/Scientific Report writing
- Preparing tenders, proposals and quotes

## PROJECTS

- Rustenburg Local Municipality Air Quality Management Plan (AQMP).
- Air quality data analysis and report compilation for City of Johannesburg.
- Air quality data analysis and ambient air quality monitoring for Ekurhuleni Metropolitan Municipality.
- Air quality data analysis and management of a monitoring network for KwaZulu Natal Department of Agriculture and Environmental Affairs.
- Stack and ambient air quality monitoring for AngloGold Ashanti.
- Supply and Installation of six ambient air monitoring stations in the Vaal Airshed Priority Area.
  - Data analysis and scientific reporting on air quality in relation to pollution sources and receptor areas.
  - Application to SANAS for accreditation of monitoring stations.
- Capricorn District Air Quality Management Plan (AQMP).
- Ekurhuleni Emission Inventory.
  - Compiling an emission inventory for all point sources in Ekurhuleni.
  - Calculating emission factors for all sources based on EPA AP42 documentation.
  - Spatially representing total emission in Ekurhuleni.
- Highveld Priority Area ambient air quality monitoring.
  - Siting monitoring stations based on sensitive receptor areas, proximity to pollution sources, prevailing meteorological conditions as well as a risk assessment based on upper air quality data.
- Professional opinion of the air quality impact of filling station emissions on surrounding residential areas in Soshanguve, Pretoria.
- Professional opinion on the impact of emissions from Xstrata Rustenburg on a proposed residential low cost housing development.
- Air quality assessment on the air quality impact of the upgrade of Simon Vermooten Road in Pretoria (2005).
- Air quality assessment on the impact of a new filling station in Vanderbijlpark.
- Air quality assessment on the impact of a new filling station at the Zwartkops Raceway in Pretoria West.
- Air Quality Assessment for a new housing development in Randfontein.
- Air Quality Assessment for a new housing development in Rayton, Pretoria East.
- Air Quality Assessment for the proposed Wildtuinpark Township in Krugersdorp.
- Air Quality Assessment for the proposed Old Mutual Land Low Cost Housing Township in Midrand.
- Air Quality Assessment for a proposed wood processing plant in Kokstad.

**Job Title** : Air Quality Manager  
**Employer Name** : Ecosat (Pty) Ltd  
**Date Employed** : February 2004 to June 2004

#### **RESPONSIBILITIES**

- Environmental management
- Project management
- Dust laboratory management
- Business development
- Dispersion modelling

**Job Title** : Contractor (ISO 14 001)  
**Employer Name** : BHP Billiton  
**Date Employed** : October 2003 to February 2004

#### **RESPONSIBILITIES**

- Coordinated the setting up of systems and tools for the Johannesburg Technology Centre (JTC) to comply with the ISO 14001 standard.
- Formed part of the project team that successfully acquired ISO14001 accreditation for BHP Billiton JTC.

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#### **Conferences**

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- National Association of Clean Air (NACA) – Rustenburg (2012)
- National Association of Clean Air (NACA) – East London (2011)
- \National Association of Clean Air (NACA) – Polokwane (2010)
- National Association of Clean Air (NACA) – Nelspruit (2008)
- National Association of Clean Air (NACA) – Drakensburg (2007).
- International Quality and Productivity Centre (IQPC) – Johannesburg (2006).
- National Association of Clean Air (NACA) – East London (2006).
- International Quality and Productivity Centre (IQPC) – Johannesburg (2005).
- National Association of Clean Air (NACA) – Cape Town (2005).
- South African Society of Atmospheric Scientists (SASAS) – Cape Town (2004).

- Safari 2000 Synthesis workshop: 7 – 11 October 2002, University of Virginia, Charlottesville, Virginia, USA. Worked with Dr Vincent Realmuto at NASA's Jet Propulsion Laboratory (JPL), Pasadena, California, on quantification of SO<sub>2</sub> emissions using ASTER satellite imagery (2002).
- Safari 2000 workshop - Siavonga, Zambia (2001).