

Lourens Geldenhuys

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Professional Summary & Skills

Commercially minded Engineering and Product professional with a background in full lifecycle product development, both in house and as a consultant. I have held roles in design and development, delivery, product management, business development, and most recently operational management of a high-tech electronic product manufacturing facility. My industry experience covers a broad-spectrum including mining, agriculture, rail, critical infrastructure, automotive and water management.

Key Skills

- Extensive technology product and systems development experience
- Excellent client-facing consultant with experience in BD / sales through to execution
- Passion for Workflow Automation driven by Continuous Improvement
- Hands on and outcomes focussed manager
- Trusted mentor and cross-functional team leader

Professional Experience

Kallipr, Brisbane
Head of Systems Engineering

Jan 2023 – Current

Kallipr, a world leader in IoT remote monitoring solutions designed for critical infrastructure in extreme environments including water management and rail.

Key Responsibilities

- **Production Management:** Operational responsibility for production and the production systems, and the scaling thereof to support Kallipr's growth from 5k to 60k devices manufactured per year.
- **NPI Delivery Management:** Coordinate and lead the New Product Introduction process for all devices and solution kits.
- **Cross-functional Operational Management:** Work closely with multiple departments (Engineering, Manufacturing, Product, Supply Chain, and Support) to drive cost, quality and throughput metrics for each product line.

Key Achievements

- Managed the development and implementation of the Konstrukt IQ digital thread system. KIQ automates the capturing of comprehensive manufacturing data from raw materials through to final assembly. This is then used by the AI-driven Kallipr KCloud Twin module for configuration management, health and diagnostics, and tech support across the entire fleet.
- Designed a bespoke model-driven automated Manufacturing Execution System (MES) using Microsoft Power Platform and managed the development and implementation thereof.
- Introduced 2 new semi-automated production lines (quadrupling existing capacity) to support manufacturing of Kallipr's Series 2 IoT dataloggers for wastewater management and commercial water meter reading.
- Currently implementing the ISO/IEC 80079-34:2018 QMS requirements (which overlay ISO 9001) needed to obtain ATEX QAN and IECEx QAR for the manufacturing of Intrinsically Safe devices.
- Managing a team of 8 direct reports and 10 cross-functional team members.

Willow, Brisbane
Group Product Manager – Infrastructure Vertical

Apr 2021 – Dec 2022

Willow enables the digital transformation of the built world using the latest Microsoft Azure digital twin technology, combined with industry relevant process driven ontologies. Willow's platform is designed to unify spatial, static, and live data to create rich, real-world context for every system and sensor, thereby powering deep analytics, automation, and predictive insights for optimised facility operations. In December 2022 Willow liquidated the Infrastructure Vertical due to lack of investor funding.

Key Responsibilities

- **Product Roadmap:** Oversaw product strategy and execution for Willow's Infrastructure vertical, driving Digital Twin growth into emergent industries.
- **Delivery Management:** Directed two dedicated Agile feature teams based in Australia and the Netherlands, reporting directly to the Chief Product Officer.
- **Business Development:** Participated in BD initiatives including on-site demonstration and discovery workshops.

Key Achievements

- Successfully launched a Proof-of-Concept twin into a lighthouse gold mining customer in NWS and negotiated a contract to progress to Minimum Viable Product. This twin utilised Theory of Constraints principles for continuous improvement and cost optimisation of production throughput across the entire value delivery chain.
- Managed the transition from project phase to \$1.2mil pa SaaS contract for Willow's Rail twin with a multi-national iron ore mining company in the Pilbara. This twin utilised Machine Learning to provide predictive rail maintenance insights.

"Big Lap"

Jan 2020 – Jan 2021

I spent 2020 travelling across Australia living in a caravan with my family. We completed our "Big Lap" around the continent in January 2021 and have settled down in Brisbane. During our travels I provided ad-hoc consulting services to a startup called Artoo.

LX Group, Sydney
Product Consultant and Delivery Manager

Aug 2016 – Dec 2019

LX Group is a consultancy specialising in innovative products and solutions with a focus on IoT and wireless applications. LX offers clients a range of professional turn-key services designed to take new product ideas from concept through to development, production, and launch.

Key Responsibilities

- **Consultant:** Engaged with new and existing clients to understand their requirements, worked with the LX Engineering Teams to conceptualise viable solutions, and prepared and pitched commercial and technical proposals.
- **Design and Development:** Directed collaborative discovery workshops with clients and the LX Engineering Teams so that business needs and requirements can be synthesised into detailed specifications and project plans.
- **Delivery Management:** Prepared execution plans and managed project delivery to ensure requirements are met across budget, timeline, and functionality.

Key Achievements

- Executed the scoping, development and project management of the Gainsborough Smart Door Lock (electronics, mobile application, and AWS cloud backend) from concept into manufacturing.
- Managed the development of a wireless home energy meter for Beam Energy. This solution measured and reported real time energy consumption for use by Beam Energy's solar platform.

- Executed the scoping, development and project management of a cookie printer for a marketing campaign for Mondelēz International's Oreo brand. Consumers would send a photo of themselves, and the system would use multi coloured icing sugar to print a caricature on an Oreo biscuit.

MST Global, Sydney
General Manager for Product

Sep 2011 – Aug 2016

Mine Site Technologies (MST) develops, manufactures and deploys productivity and safety solutions for the mining industry. The portfolio includes platforms for networking, real-time location services, proximity detection, voice communications, and telemetry solutions. These platforms enable production visibility, predictive maintenance, evacuation, mustering, collision avoidance, and fleet management.

Key Responsibilities

- **Product Roadmap:** Defined product vision and roadmap for all products within the MST solution portfolio.
- **Solution Design:** Provided solutions architecture and design support for bespoke solutions.
- **Delivery Management:** Managed budget and roadmap alignment in close collaboration with the Engineering Manager.
- **Business Development:** Participated in BD initiatives including on-site product demonstrations and user training workshops.

Key Achievements

- Developed and launched a low power IoT ground movement solution for underground mining, based on IEEE 802.15.4 Time Synchronized Mesh Protocol (TSMP), utilising multipoint rod extensometers.
- Development and delivery of MST's vehicle-centric tracking platform. This architecture set the industry standard for underground tracking accuracy and provided customers with a simple and robust vehicle-tracking platform.

Letsface, Shanghai China
Product Development Manager

May 2009 – Apr 2011

Letsface (previously Eight Mouths Ltd.) offered an exclusive location-based online community platform to members of recreational and educational establishments, utilising face recognition check-in and verification technology. The Letsface initiative started in 2009 and received funding in 2010 and launched its products in February 2011. I was responsible for product and technology strategy, as well as managing the software and web-application development teams.

Genesys Design, Sydney
Senior Design Engineer

Mar 2008 – Mar 2009

The Genesys Design consultancy provides bespoke electronic product and software development services. I designed and developed analogue and digital systems, as well as software for various 8 and 16-bit microcontrollers. I managed numerous concurrent development projects from concept to production and delivered results under pressure and within tight deadlines and budgets. My responsibilities included managing pilot production runs and high-volume manufacturing in China and Malaysia.

Sensory Networks, Sydney
Senior Hardware Engineer

Jul 2007 – Feb 2008

Sensory Networks was a provider of pattern matching and content processing acceleration solutions that support resource-intensive applications such as Antivirus, Intrusion Prevention and Content Filtering. I was responsible for VHDL algorithm development and FPGA implementation for the company's hardware pattern matching platforms. Sensory Networks underwent corporate restructuring in 2007 and decided to suspend its hardware operations in December 2007. The company was later acquired by Intel.

Personal Gap Year, Johannesburg, South Africa

Banqueting Chef

Jul 2005 – Apr 2007

I am an enthusiastic cook. In 2005 I took a 2-year “gap year” and joined the *Prue Leith College of Food and Wine*. I graduated with distinction as a Chef and received the “*Fellowship Award*” for the most-liked student from my fellow students, as well as the “*Best Student - Theory*” award. During this time, I worked as a banqueting chef for the 5-star Westcliff hotel in Johannesburg, South Africa. After this, I managed the catering division of the Randfontein Country Club in Johannesburg for 6 months, before relocating to Australia.

Mecal, Pretoria, South Africa

Hardware Engineer

Jan 1999 – Jun 2005

Mecal develops and manufactures advanced embedded computer-based automation and instrumentation systems for the European automotive and aerospace markets. I was primarily responsible for the development of the system controller cards. As the digital design team leader, I managed the development of 3 generations of rugged, conduction-cooled single-board computers. My software development experience in this role includes C/C++ development with the VxWorks real-time operating system and embedded Linux, including device drivers, bootloaders, and high-speed streaming data acquisition applications.

Education

B.Eng. (Hons) Electronic Engineering

1999

University of Pretoria, South Africa

Training & Other Skills

- **Six Sigma Yellow Belt**, 2025
 - **Microsoft Azure AI Fundamentals AI-900**, 2025, Microsoft
 - **ITIL® Foundation**, 2025, PeopleCert
 - **Generative AI Automation**, 2025, Dr. Jules White, Vanderbilt University (via coursera.org)
 - **AI Agents and Agentic AI in Python**, 2025, Dr. Jules White, Vanderbilt University (via coursera.org)
 - **VxWorks Device Driver Development**, 2001, Wind River Systems
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Professional Memberships

- **Engineers Australia** – Member and Chartered Professional Engineer
 - **Institute of Electrical and Electronics Engineers (IEEE)** – Member, and member of the IEEE Reliability Society
 - **Systems Engineering Society of Australia (SESA)** – Member
 - **International Council on Systems Engineering (INCOSE)** – Member
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