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To whom it may concern,

I'm a qualified (B.Eng.) Computer and Electronic Engineer with a passion for building systems that bridge research, data, and real-world impact. Over the past several years, I've worked across R&D, automation, and full-stack development—designing tools that make complex technical processes measurable, reliable, and scalable.

Early in my career, I led engineering R&D projects developing imaging and analysis software for particle recognition and micronutrient detection. I built custom segmentation and calibration algorithms in Python and OpenCV—tuning lighting, detection thresholds, and classification logic to translate optical data into quantifiable results. That work grounded my understanding of how code interacts with the physical world and taught me to approach every system with precision, scalability, and practicality in mind.

From there, my focus shifted to designing software systems that connect people, data, and processes. I've developed automation tools for manufacturing lines, built integrated production and compliance systems, and later expanded into full-stack software development and related technologies to deliver maintainable, end-to-end solutions.

Today, I'm looking for opportunities that let me bring this blend of **engineering depth, software design, and data-driven problem-solving** to a team that values thoughtful system design and continuous improvement. I'm particularly drawn to roles that involve building scalable architectures, data pipelines, or software systems where performance, clarity, and real-world reliability matter.

Some highlights of what I bring include:

- **Full-stack and systems engineering**: designing reliable architectures, APIs, and database models for scalable applications.
- **R&D and algorithm development**: experience in mathematical modelling, image processing, sensor data, and experimental prototyping.
- **Automation and integration**: connecting digital and physical workflows through custom tools and data systems.
- **Strong fundamentals** in **Python, Django, SQL, Docker, CI/CD**, and **Linux** environments.
- A disciplined, iterative approach that values testing, documentation, and long-term maintainability.

I'm at my best when building things that work quietly and reliably in the background—tools that make complexity simple and technology useful. Whether that means designing backend infrastructure, developing analytical software, or engineering a system that ties it all together, I approach each challenge with curiosity and technical rigor.

Thank you for considering my application. I'd welcome the opportunity to discuss how my experience and approach could contribute to your team's goals.

Warm regards,
Tian Pretorius