

Wikus Bergh

Software Developer & Data Scientist

A versatile professional with hands-on experience in software development and data science at Incubate Bio BV. Proficient in developing creative solutions using Python, well versed on data analysis, visualisation, and machine learning applications. Rapidly ascended to the role of project lead, showcasing exceptional adaptability and communication skills in fast-paced environments. Committed to leveraging technical expertise and scientific knowledge to drive innovation and efficiency in any Data Science or Software Development position.

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[LinkedIn](#)
[Website](#)

Experience

Software Developer / Data Scientist	Incubate Bio BV - Remote	2022 Oct - Present
Developed a batch job orchestrator, enhancing operational efficiency by <i>more than 150 times</i> .		
- Uses Python to configure the orchestrator run, Google Cloud CLI to submit jobs to several GCE Virtual Machines. - Active tracking of completion status of all jobs, along with relevant information.		
Led development of a client project using machine learning, allowing them to identify significant features in their biological data.		
- Feature engineering used to reduce selection bias and increase significance of findings. - Used Decision Trees, Lasso and Ridge algorithms and Gradient Boosting methods to identify features with a high influence on a target.		
Developed a counterfactual and autopath analysis package to follow DoWhy outputs in our CausalAI pipeline.		
- Used Python to create packages containing classes that can be created and manipulated with class specific or utility functions - Created a program equivalent to execution of basic counterfactuals using the output of DoWhy, as well as a sifting program called autopath to quickly filter through large amounts of results to see specific paths or outcomes.		
Developed a web application for Biology team to sift through causal analysis finding, improving rate of discovery for results of significance.		
- Used HTML, CSS, Plotly Dash, and Cytoscape.js with auxiliary Python functions. - Version for public consumption available here		
Led development of a RAG system built on generative pretrained transformers (GPT), yielding efficiently generated reports for domain specific scientific questions.		
Used Docker, GC Artifact Registry, GC Run, GC Buckets, GC Pub/Sub and GitHub		

Languages	Technologies	Other	Education
- Python - HTML - CSS - JavaScript - SQL	- Google Cloud Platform - PostgreSQL - Plotly Dash - Streamlit	- Command line tools - Package managers - Git & Github - IDE's	2019 MSc Bioinorganic Chemistry Stellenbosch University Computational and experimental project

“As a fairly senior technical profile, and CTO of a few companies, I can say that Wikus exceeded most of my expectations.”	He's an excellent engineer with a strong understanding of the science and the business context behind the applications he develops.	When handing Wikus a problem, he will find multiple possible solutions and clearly communicate the advantages and pitfalls of each and recommend a way forward.
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Projects

[freeCodeCamp projects](#) (certification)

Responsive Web Design:

- HTML & CSS -
- Survey Form
- Tribute Page
- Technical Documentation Page
- Product Landing Page

Scientific Computing with Python

- Python -
- Arithmetic Formatter
- Time Calculator
- Budget App
- Polygon Area Calculator
- Probability Calculator

JavaScript Algorithms and Data Structures

- JavaScript, HTML & CSS -
- Palindrome checker
- Roman Numeral Converter

References

Raminderpal Singh

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Pierre Martin

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André França

Senior Machine Learning Engineer, Advisor
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Expertise

Python Development
Cloud Architecture Integration
Deep Data Analysis
Web Applications/Dashboards
Machine Learning
Autonomous Problem Solver

Language

English	Native
Afrikaans	Native

For more...

Visit my webpage [here](#), it gives more in depth explanations on the skills I bring to the table (and looks cool)

Testimonials

Use the contact details above to hear it from them

I had the chance to collaborate with Wikus as part of work for Incubate.bio. **As a fairly senior technical profile, and CTO of a few companies, I can say that Wikus exceeded most of my expectations.** From zero to one very quickly, even on stacks that he had no knowledge about prior to our interaction, creative mindset and quick problem-solving. Another very interesting of Wikus' traits is his curiosity. He proactively managed to get into technical areas that weren't necessarily required by our requirements, and yet proved to be very capable at ingesting foreign concepts that in turn became beneficial to the problem at hand. I would recommend and vouch working with Wikus, contact me if any question pops-up.

Pierre Martin

Wikus has developed a very complex ML framework from the ground up. He showed great flexibility and adaptability, being able to quickly learn new concepts, develop new methods and work with very complex data to deliver value for customers. **He's an excellent engineer with a strong understanding of the science and the business context behind the applications he develops.**

André França

Wikus is an indispensable member of the Incubate team, excelling in tackling technical challenges ranging from software glitches to intricate data and machine learning issues. **When handing Wikus a problem, he will find multiple possible solutions and clearly communicate the advantages and pitfalls of each and recommend a way forward.** He is able to translate difficult scientific problems into parts which are solvable by different aspects of data science and software development. It is clear that he takes great pride in his work and puts in effort to create a smooth user experience in the output he produces for the science team. He pays extreme attention to detail but can stick to tight deadlines with a positive attitude and fierce tenacity.

Nina Truter

Wikus has consistently demonstrated exceptional problem-solving skills, tackling complex challenges independently and building innovative solutions. For example, he built a Cloud Orchestrator from scratch and led our machine learning development. **Wikus swiftly grasps and applies new technologies and concepts.**

Dr Raminderpal Singh

Wikus is a hard working, dedicated individual who would never shy away from learning a new tool. **His tireless dedication to a task and leadership served as a constant inspiration for everyone who worked alongside him.**

Talal Asmal - Machine Learning Engineer at Ominor.ai - no contact

Older Experience

Intern Medical Scientist - Emergency Staff	NHLS - Tygerberg Hospital	2019 July - 2022 September
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Employed as emergency staff during the rise of the Covid pandemic. Partook in the execution of sophisticated molecular diagnostic methods, focusing on Polymerase Chain Reaction (PCR) and quantitative PCR (qPCR) technologies. These techniques were used for the rapid and accurate detection of viral RNA in patient samples, crucial for the timely management and containment of the outbreak of Covid.

Upheld the highest standards of analytical rigor and protocol adherence, ensuring that every assay conducted under my supervision met stringent quality control criteria.

This vigilance was particularly vital in a high-stakes environment where the accuracy of every test could impact patient outcomes and public health decisions.

Trained and mentored new emergency staff during the peak of Covid outbreaks. Recognising the urgent need for skilled personnel to manage the surge in testing demand, I led training programs for incoming laboratory staff and emergency response teams.

Hobbies

- Creating personal projects
- Gaming
- Learning new technologies via courses or videos
- Learning new languages and tools
- Reading/watching Tech content
- Being creative