

Jacques Amsel

Citizenship: 🇿🇦 South African, 🇩🇪 German

Languages: English (Native), German (CEFR C1), Afrikaans (2nd language)

LinkedIn | GitHub | me@jacquesamsel.com

Experience



Founder at TicketBee

August 2025 - Present

The next-generation ticketing platform for events in South Africa. The platform provides a seamless experience for event organizers and attendees, with features such as comprehensive social/web analytics, ambassador management, and secure payment processing.

- High-availability, fault-tolerant architecture
- Running on self-managed Kubernetes
- Design and implementation of high-traffic web application



Software Engineer at Yellow

June 2024 - July 2025 (1 year)

Part time work, while I was pursuing my degree.

- Built & maintained the payment portal, processing thousands of business-critical transactions per day.
- Built & maintained the payment app and customer analytics with a large data ingest pipeline
- Generative AI & AI video processing applications in credit (BERT, LLMs, facial recognition & tracking). The system categorised pledge videos to determine the creditworthiness of customers in order to decrease the cost of review by millions per year.



Operations Intern at Wemolo

June 2025 - July 2025

Was asked to continue with a paid position at Wemolo after this short internship

- Created an ETL pipeline, handling hundreds of thousands of images, which used parallel processing to reduce computation time from ~ 2 weeks to < 1 day, saving thousands of euros in infrastructure costs.
- Built a home-grown Google Photos replacement on GCP and AWS. Implemented and improved automation systems to simplify the workflow of employees in the field.



Data Science Intern at Plentify

June 2024 - July 2024

Was asked to continue with a paid position at Plentify. During my 1-month internship, I completed four key projects that enhanced Plentify's smart water heating solution (HotBot):

- Developed an unsupervised model to calculate standing heat loss in geysers, improving energy efficiency assessments, and quantified its precision, with unknown true values, and with extremely noisy data.
- Created models for water flow patterns, enabling personalised recommendations to customers for optimal usage periods.
- Engineered a model to predict inlet water temperature for geysers, contributing to more accurate heating control and energy savings.
- Implemented monitoring systems for AWS Lambda functions, strengthening the reliability of cloud-based operations.

These projects allowed me to apply data science techniques to real-world energy efficiency challenges, while gaining valuable experience in cloud computing, and predictive modelling, in IoT applications.



Met Media Portfolio Lead at Simonsberg Residence

Feb 2024 - Feb 2026

Led Media & Marketing for the MET, involving branding, content creation, and analytics management:

- Sold out the whole event + extra tickets in 2024 and 2025.
- Reached > 300.000 views & > 60.000 users organically through Instagram.
- Managed the website with a 60% conversion rate across 3.500 unique visitors
- Ran various digital & physical signage campaigns



Software Intern at Yellow

Jan 2023 - Feb 2024

Was asked to continue with a paid position at Yellow. Internship at a company which finances solar systems and cellphones for individuals in Madagascar, Malawi, Mozambique, Rwanda, Uganda, and Zambia during my Matric holiday before leaving for university. During my time there, I...

- designed, implemented & deployed (via AWS Fargate) a tool which grades & corrects machine language translations from Google, Microsoft, and OpenAI's GPT Davinci model between English and various African languages. The tool is used to augment & accelerate human translation of agent training documents and to improve communication with agents.
- implemented a payment history view in the customer app
- redesigned & improved the customer app login & signup flow (Flutter)
- fetched water bottles for meetings ;)



Junior Software Developer at Dash waste

Jan 2020 - March 2020

Security analysis and improvement. Drawing together a consistent user experience by designing and implementing a functional user interface in VueJS. Left to focus on school.

Education



BEng Electrical & Electronic Engineering at University of Stellenbosch

Jan 2023 - Present

Focal area Data Engineering; "cum laude" honours student every year. Member of Simonsberg



Matric (IEB) at Deutsche Internationale Schule Kapstadt

Jan 2015 - Dec 2022

Valedictorian, 9+ distinctions, C1 CEFR German

Awards

Academics

- **Cum'ed my 2nd year** (Nov 2024): Top Computer Systems student, 94%+ for 5 modules, top 10 for 5 modules
- **Cum'ed my 3rd year** (Nov 2024): Module rankings are no longer available.
- **Top 2nd-year in Simonsberg** (Oct 2024): Top performing second-year student in Simonsberg Men's Residence for 2024
- **Cum'ed my first year** (Dec 2023): Received a "pass with distinction" for Probability Theory and Stats, Engineering Maths, Applied Maths, Chemistry, Physics, Data Science, Electrotechnique, Computer Programming, and Applied Maths. Mean: 85%
- **9 Distinctions in Matric** (Dec 2022): 9 distinctions in my IEB matric

- **Valedictorian** (Nov 2022): Awarded for best overall achievement at school
- **Subject prizes** (Nov 2022): Achieved 1st place in my school in Physical Sciences, Further Studies Physics, Maths, Further Studies Maths, Computer Applications Technology, and German
- **Best academic achievement** (Dec 2021): Achieved the 1st prize for academics in Grade 11

Programming

- **SAPO Bronze** (Oct 2021): Placed top 6 in the South African Programming Olympiad
- **ZAF IOI Reserve** (Nov 2020): Selected to represent South Africa at the International Olympiad in Informatics as a reserve
- **SAPO Bronze** (Oct 2020): Placed top 6 in the South African Programming Olympiad
- **SAPO finalist** (Sep 2019): Placed top 19 in the South African Programming Olympiad
- **FLL ZAF National Tournament** (Dec 2015): Invited to compete in the South African National First Lego League Tournament after placing in the Cape Town Tournament

Maths

- **Eng Maths Cum Laude** (Jul 2024): Passed cum laude in Engineering Mathematics with 95%
- **Cum laude in Engineering Maths** (Nov 2023): Achieved a pass with distinction for Eng Maths 115 and 145
- **1st prize in Mathematics** (Nov 2022): Placed first in my grade in Further Studies Maths with 80% and in Core Maths with 94%
- **Gold at the Sasol SA Mathematics Challenge** (Jul 2015): Achieved Gold at the Sasol SA Maths Challenge with my partner, Matthias Zinner.
- **WCMC 1st place** (Sep 2014): Achieved first place in my circuit at the Western Cape Maths Competition

Miscellaneous

- **Applications Olympiad 1st place WC** (May 2022): Placed 1st in the Western Cape at the South African Applications Olympiad
- **DSD II C1** (Mar 2022): Achieved level C1 CEFR ("Proficient") German in the Deutsches Sprachdiplom der Kulturministerkonferenz
- **Valedictory Committee Member** (Feb 2021): Where I organised the Valedictory Circus, Ceremony, and Matric Dance After Party. I dealt with liaising with teachers, sourcing food, drinks, a venue, as well as ticket sales

References

Ben Walwyn

CTO at Yellow

To whom it may concern,

Jacques worked at Yellow Digital Retailers part-time from July 2024 to July 2025 while concurrently completing his engineering degree. Following a highly successful 2023 internship right out of high school, we immediately offered to bring him on board, where he consistently exceeded expectations.

During his tenure, Jacques demonstrated notable independence and strong ownership, driving his own project and work streams. He developed our customer-facing payment app and web payment portal, which securely process thousands of business-critical transactions daily. Beyond this, he architected a large-scale data ingestion pipeline on AWS, and led research into Generative AI (specifically optimizing BERT-based architectures and translation models for our applications), and facial recognition to improve creditworthiness assessment.

He left Yellow in July 2025 strictly to dedicate more time to his studies and his own startup venture. He pairs a discerning, customer-focused mindset with exceptional technical execution and self-leadership.

Jacques is a top-tier talent who will elevate any engineering team he joins. I cannot recommend him highly enough for any Software Engineering role.

Please feel free to contact me directly should you require any further information.

Ben Walwyn

CTO at Yellow Digital Retailers

Jon Kornik

CEO & Co-Founder at Plentify

Jacques worked at Plentify as a Data Science Intern during a second year university vacation. He performed way beyond expectations, and at a level more typical of strong master-level interns. He demonstrated a particular aptitude for solving complex problems by combining data science techniques with an understanding of the underlying subject matter.

Karin de Villiers

Maths Teacher at Deutsche Internationale Schule Kapstadt

To whom this may concern: I have had the pleasure of teaching Mathematics to Jacques Amsel from January 2017 until he matriculated in December 2022. Academically, Jacques excelled in every subject he took. Not only did he achieve distinctions in all eight subjects he offered for his NSC certificate, he also achieved a distinction in Further Studies Mathematics (extended). From an early age Jacques' problem-solving skills were evident in the class environment as well as in test and exam situations. Jacques was tenacious in his approach to Mathematics and he would often find creative, but mathematically correct ways of solving the same problem. Besides his natural flair in Mathematics and IT, what stood out for me was Jacques' enthusiasm, work ethic and his commitment to helping other learners. On a more personal note, Jacques' calm and gentle nature made him well liked amongst his fellow students and teachers. He easily interacted with his fellow students as well as with adults, and was always on hand to assist his fellow classmates. Throughout his school career, Jacques showed exceptional mental strength, determination, perseverance and above all, a positive attitude in all that he attempted. These characteristics will serve him well in his chosen field of learning and subsequently his chosen career. Not only did Jacques make significant academic contributions at

school, he also excelled extramurally and was actively involved outside of the classroom. Here are a couple of his successes:

- Coding Olympiad - top 5 in SA (twice)
- Sound Engineer for DSK (Siddhartha play, Bazaar talent show)
- Valedictory committee
- Matric dance committee
- Volleyball
- Hoodie committee
- Job shadowing at Amazon Web Services
- Volunteered teaching learners from Luhlaza high school robotics & coding
- Competed in the Applications Olympiad and came 1st in WC
- <https://pastpaperbank.jacquesamsel.com>
- Tutoring for Club Electron
- Worked as a software developer for Dash Waste

I have no doubt that Jacques will continue to make a valuable contribution, academically and otherwise, to any academic institution or place of work. I wish Jacques all the best in the future and I looked forward to following his progress. Please feel free to contact me should you have any further questions. Yours sincerely, Karin de Villiers

I.M. Alexander

Owner at Mica Hardware Hout Bay

I confirm as owner of Mica Hardware Hout Bay, that Jacques Amsel (ID number XXXXXXXXXXXXXXXX) worked on the shop floor as a shop assistant on Sunday mornings (8:30 AM - 1:00 PM) from the 18th of May 2019 to the 27th of July 2019. I would have no hesitation in recommending Jacques, he is a bright, diligent, young man.