TANATSWA PHIL MUGANGA

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SKILLS

- C++, Python, JavaScript, Git, SQL, NoSQL (MongoDB), HTML, CSS, Linux/Unix,
- Operating Systems, Microservices, Backend, AWS, iOS/Android App Development, Agile, Machine Learning, Computer Architecture, Data mining , R studio, Power bi,
  Confluence, Jira, Agile (Scrum/Kanban) English- Fluent /German-Intermediate

WORK EXPERIENCE

Kloeckner: *Data analysis (student work) Berlin* [2024 – Ongoing]

- **Document Analysis Framework:**
  - Designed and implemented a scalable classification system for 200+ documents/month, reducing manual review time by 15 hours/week
  - Developed automated Base64 encoding/decoding pipeline for mail IDs, enabling 1-click access to documents (previously 3-minute manual process per document)
  - Created Excel-based tracking system with 100% accurate KA link generation, adopted company-wide for QA testing
- **Process Automation:**
  - Built Python-based document decoder that improved extraction accuracy by 42%
  - Reduced order processing errors by 28% through DocParse integration
- **Comprehensive Reporting:**
  - Generated detailed reports and interactive dashboards using Power BI and other data analysis tools, providing actionable insights for order trends, contributing to process optimization and improved operational efficiency.
- **Key Technologies:** Python (Pandas, Base64, automation), SQL, Power BI, Excel VBA, DocParse API

Ripples pure water: ***Operations & Data Analyst*** *(Namibia)* [2020 – 2021]

- **Process Optimization Projects:**
  - Led inventory management overhaul using demand forecasting, reducing stockouts by 40% and improving supplier turnaround by 25%
  - Automated customer billing by digitizing 500+ records (Python/Excel), cutting data errors by 15% and saving 25+ monthly work hours
- **Data Analysis & Reporting:**
  - Developed predictive water usage models that identified 15% distribution losses, enabling proactive pipe maintenance
  - Created automated sales dashboards that revealed 12% revenue growth opportunities through customer segmentation
- **Cross-Functional Systems Improvement:**
  - Implemented new inventory software across 3 locations, training 8 staff members on data-driven replenishment
  - Standardized meter reading procedures that improved accuracy to 99.8% (vs 95% industry standard)
- **Performance Metrics:**

  ✓ 30% faster complaint resolution after implementing customer service KPIs

  ✓ 8 manual reports automated through Excel/VBA solutions

  ✓ $10,000+ monthly inventory managed with 100% audit compliance

Projects

Twitter Sentiment Analysis with LSTM & Word2Vec:

- Developed a deep learning pipeline using Python, NLTK, Gensim, and Keras to classify sentiment in 30,000+ tweets with ~77% accuracy. Applied NLP techniques (tokenization, lemmatization, Word2Vec embeddings) and built a Bidirectional LSTM model to detect positive, neutral, and negative sentiment. Addressed class imbalance with resampling, and visualized insights using WordCloud, Seaborn, and Matplotlib to support brand monitoring and customer feedback analysis.

Applied Statistical Modeling: International Football Analysis:

- Analyzed 150+ years of match data (1872–2024) across top 5 international teams (Argentina, France, Spain, England, Brazil) using Python, Pandas, and Statsmodels. Applied **logistic regression**, **T-tests**, and **ANOVA** to identify statistically significant factors affecting match outcomes (e.g., tournament type, location, team performance). Created visual reports with Seaborn and Matplotlib to support data storytelling and actionable insights.

Process Scheduling and Memory Management Simulation:

- This project simulates process scheduling algorithms (FCFS, SJF, RR) and memory management using First-Fit allocation. It evaluates algorithm performance under various scenarios and includes a command-line interface (CLI) for user interaction.

Version Control system:

- Designed and implemented a Version Control System, enhancing skills in software versioning C++.

CentralCleats:

- CentralCleats is an e-commerce store for football boots. Developed using JavaScript (39.0%), CSS (37.3%), and HTML (23.7%) for the frontend, and MongoDB for the backend, the project combines modern web development practices to provide a seamless shopping experience for football players.

Web-Based Qoutation Generator:

- a browser-based application that allows users to generate professional quotations and invoices without storing data on any backend. Built individually, it uses JavaScript (86.6%) for functionality, CSS (11.3%) for styling via Tailwind CSS, and HTML (2.1%) for structure. The app integrates **jsPDF** and **html2canvas** for dynamic PDF generation and emphasizes privacy and ease of use.

SmartSpendTracker:

- A full-stack expense tracking web app built with HTML, Tailwind CSS, and Python (Flask). It allows users to scan receipts using Tesseract OCR and categorize expenses, storing data in Supabase (PostgreSQL). Features multi-user support and responsive design. Deployment to AWS EC2 is in progress.

EDUCATION

Bachelor's Degree: Computer Science| Germany[2022 – October 2025] **Relevant Coursework:** Operating Systems, Computer Architecture, Algorithms, Database Systems Software Engineering, Machine Learning, Data Mining, Web Development, Database & Big Data, Project management, Business Start-up simulation, AI application for Digital Business, Statistics, Innovation Management Digital and Globalised World