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gabriel-lucas-da-silva

Gabriel Lucas da Silva

Skills

Programming	Python, SQL, Object-oriented programming, C++, C
Development	API Development, Software Development, SOLID, Clean Code, Design Patterns
Simulation	Computer Simulations, Computer Graphics, OpenGL, CUDA
AI/ML	Machine Learning, Deep Learning, Computer Vision, Agentic Workflow
Cloud	Azure, AWS
Robotics	Arduino, I2C, Gazebo
Tools	OpenCV, PyTorch, TensorFlow, LangChain, LangGraph, scikit-learn, FastAPI, Pydantic, Celery, Redis, Docker, CI/CD, Github actions, Pytest, Kubernetes, Airflow, Postgres, PGVector

Websites & Profiles

LinkedIn	linkedin.com/in/gabriel-lucas-da-silva

Professional Summary

Brazilian-based Python Software Engineer with a strong background in Computer Engineering and over two years of hands-on AI experience. Skilled in utilizing advanced technologies such as OpenCV, PyTorch, LangChain, LangGraph, TensorFlow, and Azure to develop and deploy high-performance AI solutions. Successfully brought a project back on track after falling behind schedule for several months by leveraging solid software engineering foundation and ensuring timely delivery. Achieved remarkable results by reducing the margin of error from 30% to 3–5% through implementing new algorithms based on software development experience and utilizing OpenCV and sci-kit-learn for clustering. Excels in fostering client relationships and presenting solutions in a compelling manner that showcases the team's skills and leaves clients eager for the finished project. The objective is to develop solutions that improve the planet and leave a legacy of kindness and hope for future generations.

Work History

2024 – Current **Python Backend Software Engineer**, *Citric Sheep*.

2023 – 2024 **Data Engineer**, *AI Solutions, Campo Grande – MS, Brazil*.

- Engineered and implemented a high-precision computer vision system for real-time luggage dimensioning using RGBD camera technology on conveyor belts.
- The solution dramatically improved measurement accuracy from 30% error margin to 3–5%, delivering a robust and tunable system that became a reliable cornerstone of the operation's automation pipeline.
- The architecture leveraged YOLO, SAM, OpenCV, and custom depth-based algorithms for dimensional calculations.
- Developed a chatbot system that helped sales representatives take advantage of the company's API and provide data-driven insights.
- Designed and developed an agentic workflow using LangGraph and LangChain to orchestrate the LLMs and provide more specific prompts for each chatbot task.
- Enhanced and optimized the existing testing for a critical database migration project, implementing automated solutions and leading the testing to ensure data integrity across complex ETL processes.
- Improvements streamlined validation workflows and reduced manual testing efforts by generalizing test patterns. This enabled faster migration cycles while maintaining high data quality standards and reducing development time by approximately 15%.
- The optimization leveraged SQL for comprehensive data validation, Jinja templating for test automation, and Python for ETL pipeline testing, demonstrating strong problem-solving skills in database migration and test automation.

2020 **Frontend Software Engineer**, *Engetec Medical, Campo Grande – MS, Brazil*.

- Developed the front end in Flutter for an electronic time-tracking app.
- Collaborative team environment.
- Implemented five pages in 2 months.
- Developed scalable and maintainable code, ensuring long-term stability of the software.

Education

Expected 01/2025 **Master of Science, Computer Graphics**, *Instituto De Ciências Matemáticas E De Computação (ICMC) – USP, São Paulo – SP, Brazil*.

As part of my Master's in Computer Science and Applied Mathematics, I am working on developing a smoke simulation using the RBF-FD technique. This technique leverages radial basis functions to discretize the partial differential equations governing smoke behavior, allowing for more accurate and efficient simulations. Smoke simulation is an important area in computer graphics, used in games, movies, and other visual applications. I am excited to contribute to advancements in this field and look forward to sharing my results soon.

01/2021 **Bachelor of Science - BS, Computer Engineering**, *Universidade Federal De Mato Grosso Do Sul, Campo Grande – MS, Brazil*.

As a Computer Engineer, I specialize in designing, developing, and implementing hardware and software solutions across various applications. With expertise in programming, embedded systems, computer networks, and artificial intelligence, I am equipped to create innovative solutions to complex problems. My background in Computer Engineering has given me a solid understanding of fundamental principles in electronics, computer architecture, and algorithms. I have also developed data analysis and mathematical modeling skills, enabling me to make informed, evidence-based decisions.

Certifications

LARC/CBR-2018 IEEE Standard Education Kits – IEEE

LARC/CBR-2019 @home – IEEE

Certiprof Scrum Foundation Professional Certificate (SFPC)

Coursera Front-end Development with React

Udemy Applying SOLID Principles in Practice

Languages

English	Bilingual or Proficient (C2)
Portuguese	Bilingual or Proficient (C2)