FABIAN FLORES GOBET

COMPUTER SCIENTIST & MACHINE LEARNING ENGINEER
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SUMMARY

Driven computer scientist with a strong background in machine learning, full stack development, and high-performance computing. Skilled in containerized deployments, advanced data analysis, and distributed architectures, delivering efficient, scalable solutions across diverse environments. Adept at rapidly adopting new technologies and translating research into actionable, real-world applications in both academic and industry settings.

TECHNICAL SKILLS

Software engineering, Full stack web development, Data engineering, Data analytics, Machine learning, Deep learning, Robotics, Simulation, Automation, Scripting, DevOps, Containerization, Agile methodologies, Low code, Rapid Development

SOFT SKILLS

Critical thinking, Teamwork, Proactivity, Result Oriented, Leadership

TECH STACK

Programming Languages: Python, Java, C++, Scala, Prolog, Arduino, Prolog, Javascript, SQL, Bash, HTML/CSS, Flutter
Libraries & Frameworks: Django, React, Node.js, Express.js, Next.js, FastAPI, PyTorch, Pandas, CrewAI, Langchain, Crawl4AI, BeautifulSoup, Selenium, LangGraph, Scikit-learn, OpenAI Agents SDK, TensorFlow
Databases: MongoDB, MySQL, PostgreSQL, SQL, NoSQL
Tools & Platforms: Docker, Git, GitHub, ROS2, XAMPP, MariaDB, Orange, Microsoft Office, OutSystems, High Performance Computing, ComppeliaSim, MongoDB Compass
Methodologies: Agile Scrum

PROFESSIONAL EXPERIENCE

Nov 2024 - Present: Researcher and Developer, LvLUp Wealth Management
Designed and implemented an automated workflow for financial statement analysis and reporting using agentic systems. Set up a VPS domain, deploying containerized services (WebMail, MongoDB, and website hosting). Automated targeted web crawling and data analysis processes with agentic systems, streamlining data ingestion and reporting.

Jan 2023 - Dez 2023: Siza Atlas Project Research Assistant, ISTAR - Information Sciences and Architecture Research Center
Led the research, customization, and deployment of the Siza Atlas collaborative platform for cataloging and managing the cultural heritage of Álvaro Siza's work using the Arches Project framework. Implemented and containerized the solution on ISTAR's private Ubuntu server, ensuring a secure and scalable environment.

Sep 2022 - Feb 2023: Undergraduate Databases Teaching Assistant, ISCTE - University Institute of Lisbon
Taught core database concepts and skills, including relational schema design, UML class diagrams, conceptual-to-relational model mappings, SQL, PHP, and MySQL.

2015 - 2023: Restaurant Managing Partner, República da Gula, Lda - Don Carvoeiro Restaurant
Coordinated staffing and shift scheduling. Supervised cooking staff and oversaw daily meal preparation as head chef. Managed stock and ingredient availability.

Sep 2012 - May 2020: Highschool Math Tutor, ESPAMOL - Escola Padre António Martins de Oliveira
Provided personalized and group math tutoring to high school students, focusing on core concepts and exam strategies aligned with national testing standards. Designed targeted lesson plans, practice exercises, and review sessions to strengthen students' problem-solving skills and test-taking confidence, resulting in notable improvements in their exam performance.

PROJECTS OF INTEREST

2025: Automated Swiss GAAP FER Compliance, USI Startup Centre
Developed an agent-based system to ingest financial statements and automatically generate Swiss GAAP FER compliance reports. Incorporated advanced data parsing and validation to streamline financial audits, reducing manual effort and error rates.

2025: AI-Driven Research and analytics, Hurricane Studio
Built a custom web-scraping pipeline to collect high-volume market data, then integrated NLP and AI models for real-time sentiment analysis, user feedback parsing, and trend detection. Delivered interactive dashboards enabling data-driven decisions.

2024: Transformer-Based Chatbot with Cornell Dialog Data, Deep Learning
Pre-processed the Cornell Movie Dialog dataset and trained a custom Transformer model using PyTorch. Achieved more coherent, context-aware responses than standard Seq2Seq approaches, showcasing advanced natural language understanding capabilities.

2024: Automated detection and refactoring of "God classes", Information Modeling & Analysis
Leveraged unsupervised learning to identify and decompose large, monolithic Java classes. Improved maintainability and OOP compliance by automating the refactoring process, enabling transition toward more modular, maintainable architectures.

2024: Snooker Video Perspective Reconstruction, Computer Vision & Pattern Recognition
Created a video pre-processing pipeline combining classical CV techniques (e.g., Canny, Hough, DLT) to reconstruct camera perspectives in snooker footage. Enhanced shot analysis and angle measurement, informing more accurate performance feedback.

2023: High-Performance Non-Linear PDE Solver, High Performance Computing
Implemented domain decomposition and parallel computing techniques (via MPI) to solve non-linear partial differential equations in C++. Demonstrated scalability for large simulations, emphasizing efficiency and distributed computing expertise.

2023: Stochastic Team Productivity Simulator, Information Processing
Developed a Flutter application modelling team productivity under various lifestyle factors using stochastic simulations. Provided predictive insights for performance optimization and resource planning in organizational settings.

2023: Distributed Data Architecture for Mice Lab, Distributed Systems
Designed a distributed solution for ingesting MQTT stream data from a simulated mice lab into MongoDB and MariaDB, managed via a Flutter frontend. Enabled real-time data capture, monitoring, and scalable analysis for experimental research.

EDUCATION

2023 - Present: Master's in Artificial Intelligence, USI - Università della Svizzera Italiana
Current GPA 8.2/10

Key Courses: DeepLearning, Machine Learning, High Performance Computing, Computer Vision & Pattern Recognition, Robotics, Data analytics, Advanced Topics in Machine Learning, Knowledge Search and Extraction, Information Modelling and Analysis
GitHub projects repository: https://github.com/FabianGobet/USI-projects.git

2021 - 2023: Bachelor's in Computer Science, ISCTE - University Institute of Lisbon
Final GPA: 17.4/20
Key Courses: Computer Architectures, Databases, Network Architectures, Software Engineering, Concurrent and Parallel Programming, Distributed Systems, Network Security and Management, Development for Internet and Mobile Apps, Information System Design and Development.
GitHub projects repository: https://github.com/FabianGobet/ISCTE-projects.git

AWARDS

Student of Merit award - 2022
ISCTE - University Institute of Lisbon

Student of Merit award - 2021
ISCTE - University Institute of Lisbon

LANGUAGES

English: Native / Bilingual Proficiency
Portuguese: Native / Bilingual Proficiency
Italian: Elementary proficiency
German: Limited Working Proficiency

VOLUNTEERING

2018 - 2023: Firefighter and Medical Emergency First Responder, Humanitarian Association of Volunteer Firefighters of Odivelas
Served as part of a specialized firefighting team, providing logistical support and operating advanced equipment to combat rural fires. Coordinated with the Combat Support Logistics Team and the Special Rural Firefighting Unit to ensure timely, effective interventions. Designated ambulance driver during night shifts, enabling rapid medical response and patient transport in emergency situations.

CERTIFICATIONS

Jul 2023: Deep Learning Specialization
Coursera
Credential ID: QECBNEWDC33K

Jul 2023: IELTS Academic - CEFR Level C1
British Council
Credential ID: 22PT004194FLOF008A

Jul 2023: Computer Engineer
ISCTE - University Institute of Lisbon
Certificate of Studies

2020: Ambulance Driving Permit
IMT - Institute of Mobility and Land Transport

2019: Emergency Ambulance Crew
ENB - National School of Firefighters

May 2017: Yachman Licence
DGRM - Department of Control and Management of the Marine Environment and Resources

Jun 2017: Marine Radio Operator Permit
DGRM - Department of Control and Management of the Marine Environment and Resources

2013: Recreational Diver - Level 2
PADI - Professional Association of Diving Instructors

HOBBIES & INTERESTS

Computer Science, Mathematics, Gym, Healthy Lifestyles, Piano, Drums, Mycology, Flyboard