Saly Masri

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Profile

Computer Engineer (M.Sc. CSE, KTH *exp. 2026*) with breadth across **embedded & systems**, **software/full-stack**, and **data/AI**. Experienced building on **Linux**, delivering **REST APIs** and UIs, and designing **ML** pipelines—skilled in **Python/ML**, **C/C++**, **Java/PHP**, and **networking/security**. Focus on **clean code**, **reproducibility**, and **measurable outcomes**.

Skills

Embedded & Systems: Embedded Linux, C/C++, Python, real-time/latency, IEEE 1588/PTP, TCP/IP, Wireshark/tcpdump, GDB • **Full-Stack:** Python, Java, PHP, JS (ES6+), FastAPI/Flask, Jakarta EE (REST), Android, Docker, CI/CD, OOP • **Data/AI:** pandas, NumPy, scikit-learn, XGBoost, PyTorch, feature engineering, CV, time-series • **Datastores/BI:** PostgreSQL, MySQL/MariaDB, MongoDB, Power BI • **Workflow:** Git/GitHub, Agile/Scrum, reproducible pipelines

Experience

Intern — Development Engineer
Megger AB, Sweden   *Jun 2025 — Aug 2025*

- Developed **embedded Linux** tools and **Python** scripts for time-synchronized data acquisition; automated parsing, logging, and dataset generation.
- Performed **protocol-level debugging** (TCP/IP, Ethernet) with Wireshark/tcpdump; profiled **latency/jitter** and validated system behavior.
- Improved **software reliability** via modular design, **unit/integration testing**, and Git workflows; collaborated in an **Agile** team and documented interfaces and results.

Tutor — STEM Subjects
Stiftelsen Läxhjälpen, Sweden   *Aug 2022 — Present*

- Coached students in mathematics and science; communicated technical ideas clearly and tracked progress.

Education

KTH Royal Institute of Technology
M.Sc. Eng. (Computer Science & Engineering), exp. 2026   *Stockholm, Sweden*

Mälardalens University
B.Sc. Analytical Finance, Jun 2021   *Västerås, Sweden*

Selected Projects

Full-Stack Restaurant Platform
Jakarta EE (REST), MariaDB, JSF/HTML/CSS/JS, Android (Retrofit) | GitHub

- Built **customer site**, **admin dashboard**, and **mobile apps** with CRUD, authentication, workflows, and **real-time status** over a modular REST API.
- Implemented **database schema**, ORM, input validation, error handling, Docker/CI/CD basics; delivered responsive UI and clean OOP code.

Hierarchical LLM + RL Agent
Python, PyTorch (PPO), JSON schemas, latency-aware controller | Academic

- Built hybrid controller where an **LLM** selects sub-goals and **RL** executes navigation/combat/flee; enforced event-driven switching and dwell-time.
- Focused on **real-time constraints**, metrics (latency, switches/min, dwell), and robust JSON I/O; applied testing and structured logs for reproducibility.

Security & Protocols Lab
Wireshark, BIND/DNS, Linux, GDB, Docker | Academic

- Configured **DNS** zones/delegation and analyzed **TCP** handshake, retransmissions, congestion control; documented with packet-level evidence.
- Implemented **buffer overflow** & control-flow hijacking PoCs, static/dynamic analysis, and basic mitigations (hardening, input validation).

Languages

Arabic (Native) • English (Full Professional) • Swedish (Full Professional)