Octave LOUVEL

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SUMMARY

Second-year engineering student at ensIIE, in the High Performance Computing and Big Data track. Passionate about Linux systems and infrastructure: I run my own Proxmox homelab and chair the school's cybersecurity club. I am looking for a **3-month internship in HPC**, from early May to early August 2027.

EDUCATION

ensIIE – École nationale supérieure d'informatique pour l'industrie et l'entreprise Aug. 2025 – June 2028
MSc-level Engineering Degree in Computer Science – HPC & Big Data track Évry, France

- **Relevant Coursework**: High Performance Architecture, Parallel Programming, Statistical Learning, Data Stream Processing, Databases, Operating Systems

CUPGE – University Preparatory Program for Engineering Schools Aug. 2023 – May 2025
Intensive two-year program in Mathematics and Computer Science Lyon, France

- **Focus**: Advanced Mathematics, Algorithms, Theoretical Computer Science

EXPERIENCE

IBISC Laboratory Jul. – Aug. 2026
Software Engineering Intern Évry, France

- Integrated a distributed architecture of ROS 2 nodes (control, safety, vision)
- Controlled a UR3e robotic arm through ROS 2, TCP communication and Node-RED
- Containerized the stack with Docker in a reproducible Linux environment
  Tech stack: ROS 2, Docker, Node-RED, TCP, colcon, rosdep, Linux

Fruit Noréaz Jul. – Aug. 2024 & 2025
IT Intern Yverdon-les-Bains, Switzerland

- Designed and deployed two WordPress websites with automated workflows
- Assembled and configured workstations for company employees
  Tech stack: WordPress, PHP

PROJECTS

TriHack – International CTF (France / Malaysia / Pakistan) Jul. 2026

- Co-organized with partner universities: coordination and negotiations in English
- Designed challenges, set up the moderation framework and fought cheating

Homelab – Personal Server and Self-Hosting Since Sept. 2024

- Run an infrastructure hosting AI models, web applications and game servers
- Configured reverse proxies, domain routing, Cloudflare tunnels and network security
  Tech stack: Proxmox, Linux (Debian), LXC containers, virtual machines, Cloudflare Tunnel, DNS

ASTROJUMP – 2D Game and Game Engine Jan. – May 2025

- Developed a complete 2D game engine, including a physics engine (gravity, collisions)
  Tech stack: C++, SDL

SKILLS

Languages: French (native), English (C1), Japanese (A2)
Programming: C/C++, Python, Java, JavaScript, Bash, OCaml, SQL, PHP
Systems & DevOps: Linux (Arch, Debian), Proxmox, Docker, Networking, Self-hosting
Tools: MPI, Git, Cloudflare, ROS 2, Node-RED, Godot, Arduino, Valgrind, WordPress
Fields: High Performance Computing, Systems Programming, Algorithms

ACTIVITIES

Student life: President – Cybersecurity and Roller Skating clubs | IT Manager – Student Union | Treasurer – Electronics Club
Sport & interests: Climbing (university competitions), roller skating, cinema, reading (sci-fi, philosophy, fantasy)