Ilias Rais

Software Engineer | Erasmus Mundus CYBERUS Student

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Available for a 6-month internship from February 2027

Summary

I moved into cybersecurity from years of designing and building production web applications, and that builder's perspective is my edge: I find and fix vulnerabilities with a first-hand understanding of how real systems are actually made and where they break.

Track record: Every company I've interned with has offered me a full-time position.

Education

University of South Brittany (UBS) & University of Luxembourg (UL) *Lorient, FR | Luxembourg*

Erasmus Mundus Master's in Cybersecurity – Software Security Track Sep 2025 – Present

École Supérieure Nationale d'Arts et Métiers (ENSAM) *Casablanca, MA*

Diploma: Software Engineer in Artificial Intelligence and Computer Science - Top 10% Sep 2020 – July 2025

Experience

Productique Québec & Université de Sherbrooke *Sherbrooke, QC, Canada*

ICS/OT Cybersecurity Researcher | ***Internship*** 2 Months | May 2026 - June 2026

- Designed and deployed a fully containerized **ICS/OT security lab** with **Docker** and **Docker Compose** (OpenPLC, Ignition SCADA, Node-RED, an Eclipse Ditto digital twin, and an MSSQL historian), replicating a realistic industrial network fully reproducible from a single Compose file.
- Audited every component and confirmed **27 vulnerabilities** across five systems, each with a working proof-of-concept, including original, previously-unreported stored XSS findings in OpenPLC.
- 7 automated attack kill chains with **Caldera**, each mapped end-to-end to **MITRE ATT&CK for ICS**.
- Designed a **Cross-Layer Consistency Verifier** (**FastAPI** + **React**) that cross-checks the PLC, digital twin, and historian in real time, detecting 5 of 6 process-manipulation attacks in 10–20s with zero false positives.

VOID *Casablanca, MA*

Full Stack Engineer | ***Final-Year Internship*** 6 Months | Feb 2025 – July 2025

- Conducted security audit of Vactory framework, identifying and remediating **12+** vulnerabilities including XSS, CSRF, and outdated dependencies, strengthening **OWASP** compliance across production applications.
- Built an automated **CI/CD** pipeline (Bitbucket Pipelines, Docker, EasyPanel) and a headless intern-management platform (Decoupled Drupal, React/Next.js), cutting deployment to 15-minute automated releases.

Naoris Consulting *Casablanca, MA*

Cybersecurity & Full-Stack Developer | ***Internship*** 4 Months | Mar 2024 – July 2024

- Developed automated pentesting framework integrating LLM-driven analysis with **Wapiti**, **Nikto**, **Netcat**, and **Tcpdump** to streamline vulnerability detection and report generation.
- Performed vulnerability assessments on web applications, documenting security flaws including SQL injection, authentication bypasses, and misconfigurations following **OWASP** testing methodology.
- Generated detailed penetration testing reports **(100+ pages)** for both technical teams and non-technical stakeholders.

Projects

- **Automated Pentesting Platform:** Integrated open-source security tools to perform vulnerability scanning and generate detailed security reports for analyzed targets.
- **Task Management Microservice Platform:** Developed a microservices-based platform using **Laravel** for the backend, **Next.js** and **ShadCN** for the frontend. Implemented **Docker**, **GitHub Actions**, and **Kubernetes (Minikube)** for deployment and scalability.

Skills

- **ICS/OT Security:** PLC/SCADA/HMI security, digital twins, industrial protocols (Modbus, OPC-UA); OpenPLC, Ignition SCADA, Node-RED, Eclipse Ditto, historian databases; MITRE ATT&CK for ICS.
- **Offensive Security:** Vulnerability research and source-code review, penetration testing, attack-chain automation, adversary emulation (Caldera); Nmap, Burp Suite, OWASP ZAP, Metasploit, Wireshark, Tcpdump, Gobuster, Nikto, Wapiti, Kali Linux; active CTF player.
- **Networking:** TCP/IP, OSI, Secure Software Defined Network (SDN): Mininet, ONOS
- **Risk & Methodology:** EBIOS RM, MITRE ATT&CK, OWASP.
- **Programming Languages:** PHP, Javascript, Python, C
- **Web Technologies:** Node.js, Tailwind, NextJS, ReactJS, Drupal, Redux, Laravel, Inertia.js and UX Design, SQL (PostgreSQL, MySQL, Oracle SQL+), NoSQL (MongoDB)
- **DevOps:** Docker, Docker Compose, Bitbucket Pipelines, Kubernetes, and EasyPanel
- **Others:** Figma, Adobe Suite, Canva, Git, Github, Slack, Jira, Notion, Discord, Agile/Scrum
- **Soft Skills:** Leadership, Stress Management, Cross-functional Collaboration, Problem Solving

Awards

- Gitex Africa 2024 Smart Cities Hackathon | **Second Prize**
- International Smart Cities Hackathon in Martil | **First Prize**
- DevJam v2.0 By ENSIAS IT CLUB | **First Prize**

Professional Certificates

- TryHackMe Junior Penetration Tester
- CLLMSP (Certified LLM Security Professional)
- Google Cybersecurity Professional Certificate **(9 Courses)**
- Cisco Ethical Hacker Certificate
- Cisco Linux Essentials
- Google UX Design Professional Certificate **(7 Courses)**
- Meta Front-End Developer Professional Certificate **(9 Courses)**
- IBM Agile and Scrum Foundations Certificate **(3 Modules)**

Extracurricular Experiences

GDG On Campus — *ENSAM Casablanca, MA*
Web Training Lead | *Instructor* — Sep 2024 - Present

Computer Science Club — *ENSAM Casablanca, MA*
Instructor | *Consultant* — Nov 2021 - Dec 2023

Volunteering

- GDG Devfest Casablanca 2022
- Forum des entreprises ENSAM Casablanca 2022
- IA Africa Competition 2021

Languages

- **English:** C1 (fluent, full professional working proficiency)
- **French:** B2 (professional working proficiency)
- **Arabic:** Native speaker