

Paul Merlin

Development and Security Engineer

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in paul-merlin-19b314a7

Current Situation

Seeking an opportunity as a software developer.

Skills

Programming

- Expert level: C, Python
- Advanced level: Solidity, Javascript, React, NodeJS, C++, HTML, CSS
- Fundamental level: Typescript, PHP, Java, MongoDB, MySQL

Environment and Tools

- Git/Github/Bitbucket
- VSCode
- Ethereum Blockchain
- Web3.js/Ethers.js
- Hardhat
- Windows 7/10/11 and Linux distributions: Ubuntu, Debian, Kali Linux
- Jira

Technical Expertise

- Cryptology (including standard encryption and signature algorithms)
- Smart Contracts Development: securing smart contracts, protecting against Blockchain-specific vulnerabilities (using tools like Slither), and optimizing gas costs.
- Consensus mechanisms (proof of work, proof of stake, etc.)
- Software Security (buffer overflow, web vulnerabilities, etc.)
- Code analysis according to Common Criteria evaluation scheme (ISO 15408)
- Basic networking knowledge (TCP/IP, HTTP, HTTPS, DNS, VPN)
- CI/CD pipelines with Github

Languages

- English written/spoken (equivalent to TOEIC level B2)
- Spanish (equivalent to TOEIC level B1)
- Writing skills (French/English)

Soft Skills

- Team Collaboration: Effectively contributing to team projects, fostering smooth communication, and working collectively towards goals.
- Adaptability: Quickly adjusting strategies and methods based on the specific needs of projects and interlocutors.
- Problem Solving: Identifying, analyzing, and solving complex technical problems autonomously and proactively, analyzing risks.

- Technical Innovation: Designing and implementing innovative solutions to overcome technical challenges, leveraging the latest technologies and methodologies.

Professional Experience and Education

- April 2024 - **Blockchain Developer Training with Alyra**, *Creation of smart contracts with Solidity, testing with Javascript using the Chai library, deployment on the Sepolia testnet*, Implementation of Dapps in Javascript/Node JS/React/CSS, Using the Ethereum development environment Hardhat
July 2024 Obtained certification with honors
- May 2021 - **Embedded Development Engineer at Technology and Strategy**, *C implementation of various embedded programs on microcontrollers*, Consulting missions for Atlantic and EVBox, Creating tests for programs developed with Ceedling
July 2023
- Nov 2017 - **Cryptography Engineer at SERMA Safety and Security**, *Security analysis of embedded code on smart cards (C, JavaCard, assembler)*, Implementation of tools in Python, Practical application of theoretical knowledge in cryptology and computer security
Feb 2020
- 2017 **Master's Degree in Cryptology and Computer Security**, *University of Bordeaux*, 6-month internship at LACAL (Laboratory for Cryptologic Algorithms) at EPFL, tutor: Arjen LENSTRA, Study of the contribution of elliptic curves in cryptography and optimized implementation in C of the Elliptic Curve Method for integer factorization
- 2016 **Master's Degree in Cryptology and Computer Security**, *University of Bordeaux*
- 2015 **Master's Degree in Image, Sound, and Video**, *University of Bordeaux*
- 2014 **Bachelor's Degree in Computer Science**, *University of Bordeaux*, 3-month internship at LaBRI (Laboratoire Bordelais de Recherche en Informatique) at the University of Bordeaux, Implementation of a graph coloring algorithm from a paper, discovering the world of research

Personal Projects

<https://github.com/Paul-M-33>

<https://www.codingame.com/profile/a42fea2a89ebe033ef2e3156838c62ec0072921>

https://www.root-me.org/Magsen_?q=%2FMagsen-128139&lang=fr#ef49f72ad969d06f70d818e52afcdee1

Hobbies and Interests

Sports activities (running, football)

Chess (about 2000 elo FIDE)

Piano

Traveling (2020: South America)

Driving license