Ramy LAIB

135b Rte de chartres, Bures-sur-Yvette, Île-de-France, France

06 36 20 66 85

Ramy.laib@proton.me

LinkedIn

GitHub

SUMMARY

Engineer specialized in systems and networks with a passion for technological innovation, aiming to leverage my skills in Linux-based environments, backend development with Python and C, and high-performance computing technologies. Seeking a challenging position in a dynamic organization where I can contribute to impactful projects and continue to grow professionally.

EXPERIENCE

Full Stack Developer Intern Feb 2024 - Aug 2024

AdvanThink(isoft) *Saint-Aubin, FR*

- Analyzed the existing system and designed a service-oriented architecture for batch execution, improving efficiency by 60%.
- Developed DevOps scripts for service configuration automation, reducing setup time by 50%.
- Completed a research thesis on optimizing software architecture using services and microservices.

EDUCATION

Master's Computer Systems and Networks, Université Paris-Saclay 2022-2024

Relevant Courses: Service-Oriented Architecture, High-Performance Computing (C, OMP, Pthread, MPI, CUDA), Systems and Network Administration, Database Management Systems, Operations Research, Data Science (Python).

Master's Networks, Mobility, and Embedded Systems,U.M.M.T.O 2022

Relevant Courses: Network Security, Parallel Architectures and Distributed Systems (C, OMP, Pthread, MPI, CUDA), Mobile Networks, Embedded Systems Interfaces ,ARM assembly.

Winner of the Security module CTF.

Bachelor's Computer Science: Computer Systems, U.M.M.T.O 2018-2021

Relevant Courses: Algorithms, Python, Java, C, Operating Systems, Information Systems Security ,Web Development ,Mobile Development ,ARM assembly. Member of the Computer Science Club.

PROJECTS

Smart Trash Can Design

Developed an Innovative IoT Solutions leveraging AI to detect and accurately sort medical waste with an 85% accuracy rate. The system was built using Arduino and ESP32 microcontrollers, blended with TensorFlowJS models for real-time AI Data Processing. Applied MQTT protocol for lightweight messaging and Node-RED for flow-based programming, ensuring seamless data integration and processing. Hosted the solution on AWS IoT Core to manage and scale device connectivity effectively.

Neural Network Implementation in C

Algorithm Optimization Project where i developed a Custom Neural Network Architectures in C for classification, including random initialization of weights and biases, implementation of the sigmoid activation function, and forward/backpropagation for supervised learning.

Integrated Library Management System

Engineered and deployed a Efficient Data Management Solutions for library management, aimed at optimizing book lookup efficiency by 40%. Utilized Python with Flask framework for backend development, incorporating ProtoBUF for efficient data serialization and Celery for task scheduling. Managed a large-scale database of over 10,000 books, ensuring robust data integrity.

OracleDB to MongoDB Migration

Led the installation, configuration, and migration of an Oracle database on Oracle Linux 8 to MongoDB, resulting in a 50% reduction in query response times. Developed and executed customized migration scripts to ensure Seamless Database Migration and zero data loss during the transition. Implemented MongoDB's document-oriented structure to Enhanced Data Scalability and performance.

Resilient Campus Architecture Network

Designed, configured, and deployed a resilient campus network optimized for high performance. Utilized VMware for virtualization, Cumulus Linux for network management, and implemented ACL firewalls for security. Integrated automation with Ansible and ensured fault tolerance with LACP (Link Aggregation Control Protocol) and MLAG (Multi-Chassis Link Aggregation) across access, aggregation, and core levels. This setup resulted in a 30% improvement in network uptime and enhanced network redundancy and reliability.

Security and Firewall on OpenBSD

Administered system and network security by deploying Packet Filter firewall on OpenBSD, ensuring robust protection against potential threats. Incorporated Proactive Fault Tolerance mechanisms using CARP (Common Address Redundancy Protocol) and PFsync to synchronize firewall state tables across multiple nodes, enhancing network reliability and security posture.

Data Analysis

Completed a Python-based Advanced Data Analytics project focusing on improving classification and Predictive Modeling accuracy by 20% through advanced techniques such as clustering, canonical correlation analysis, and principal component analysis. Analyzed datasets with over 1 million records, leveraging pandas for data manipulation and matplotlib for visual data exploration.

SKILLS & TALENTS

Programming Languages	C (HPC,ParralelProgramming), Python(scikit-learn,Flask,...), Java, JavaScript
Tools	Docker, Ansible, Git, Bash, VMware, VirtualBox ,Jenkins ,Kubernetes ,Terraform ,Grafana
Databases	OracleDB, MongoDB, SQL ,
Web Development	HTML,CSS,JavaScript,Flask, RESTful API ,ProtoBUF
Security	Metasploit, Nmap, Nessus ,ISO 2700x,Mehari
Networking	TCP/IP, OSI Model ,Wireshark ,AWS
Interpersonal Skills	Strong oral and written communication, Agile and Scrum methodologies ,JIRA , proficiency in LaTeX, Word, Excel, quick adaptation to new environments, sharp problem-solving skills

EXTRACURRICULAR ACTIVITIES

| Leetcode and EulerProject for fun | Tolkien lore enthusiast | Cinema lover | SSIAP (student job) | Passionate about Technological Innovations