Ismael Ouattara

Student at Ecole Polytechnique/Telecom Paris Looking for security and machine learning job

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Education

2021 – 2023 — **Telecom Paris and Polytechnic Paris Institute**, *Palaiseau*, France's leading schools of informatic
Spécialization: **Cyber Security**, **Machine Learning** and **Mobile Network**, Degree: **Engineer/Master**.
Master IP Paris in **Machine Learning**, **Communication** and **Security**.

2018 – 2022 — **Ecole Polytechnique**, *Palaiseau*, One of france's leading schools of science and engineering
Spécialization: **Cyber Security** and **Machine Learning**, Degree: **Engineer/Master**.
Courses followed: **Computer Science**(**Computer Architecture**, **Network and Information Security**, **Cryptology**, **Distributed Computing**, **Machine and Deep Learning**, **Compilation**), **Applied Mathematics**(Statistics, Markov Chain).

2016 – 2018 — **INP-HB**, *Yamoussoukro, Ivory Coast*, Intensive undergraduate program leading up to competitive nationwide entrance examinations to the *Grandes Ecoles de France*(*Classes préparatoires MPSI*)

Work experience

April 2022 – October 2022 — **Part-time Machine Learning/Security Engineer**, MITHRIL SECURITY, Paris, France
○ **Defenses** against **model extraction** and **membership inference** for Deep learning Model.

March 2022 – Sep2022 — **Research Intern**, ALCATEL-LUCENT INTERNATIONAL NOKIA BELL LABS, Nozay, France
○ ML based detection **Anomaly/attacks** on 5G network using **knowledge graph convolutional network**.
○ Nokia decided to fill a patent (as standard essential) on a result found during our work.

April 2022 — **Part-time teacher**, ISEP, Paris, France
○ Teacher for **Intrusion detection system** Lab.

April 2021 – August 2021 — **Research Intern**, INRIA, Rennes, France
○ Design of a meta model of **cryptographic architectures** for verifying compliance with the good practice.

June 2020 – August 2020 — **Summer Intern**, CIE, Abidjan, Côte d'Ivoire
○ Detection of anomalies on electrical installations from aerial images using **Keras**, **Tensorflow** and **Pytorch**.

Project

September 2018 – March 2022 — **Working on projects**
○ Implementing a point-to-point **communication** system of an **optical fiber**, a **generative deep neural network** representing the channel, a predictive model for the receiver.
○ Implementing a **seq2seq model** to predict CIM-10 code from a diagnostic (**NLP**).
○ Setting up a **dynamic pricing** using reinforcement learning and **recommandation system** on sales platforms.
○ **Predicting** which driver signups are most likely to start driving for uber and the number of retweets of a tweet.
○ Implementing **IoT attack**: Kill switch, DHCP spoofing, Tcp syn flood, DNS Hi Jacking.
○ Implementing **snort** rules to build **firewall** for securing a local **network** and **yara** rule to detect **malwares**.
○ Implementing a **mini c compiler** using java.

Voluntary experience

September 2022 — **Junior Conference on Wireless and Optical Communications**, *Telecom Paris*, Palaiseau, France
○ Presenting my work on False Base Station Detection.

June 2019 – March 2021 — **Member of X-Afrique**, *Ecole Polytechnique*, France
○ X-Afrique works towards promoting the african culture, personal and professional opportunities in Africa.

September 2018 — **Leadership and military training**, *French army*, La Courtine, France
○ Command exercises to develop leadership and teamwork;military training to improve the mental strength.

Skills

Computer knowledge
○ **Programming languages**: C, C++, java, python, Rust, R; Assembly language: X86.64; OS: Unix, Windows.
○ **Network protocols**: IP, TCP/UDP, DNS, DHCP, HTTP; **Tools**: Docker, Github(Ouatt-Isma), Zotero.
○ **Webmastering and data management**: HTML5, CSS3, JavaScript, PHP, My SQL, Wordpress.

Languages
○ French (native), English (advanced), Chinese (beginner), Spanish (beginner).