Guilhem Mizrahi

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Summary: Cybersecurity student and engineering graduate with a background in pure Mathematics and Computer Science. Seeking a role in a cybersecurity company with opportunities to apply my experience in research, problem solving and interest in security.

SecureSet Academy
Jul. 2019 - Dec. 2019

CORE Cybersecurity Engineering Program, Denver, Colorado

Over 800 hours of hands-on, lab and classroom-based training in fundamentals concepts of cybersecurity:

- Network Security: OSI model, network architectures, protocols, vulnerabilities, analysis of traffic, setting up servers. Exploitation & Pen Testing. Wireshark, tcpdump, nmap, Burp suite, Zap, BeEF, OWASP
- System Security: Linux systems, architecture, and processes. Python and bash scripting. Nasm, GDB, gcc, Metasploit, Mitre ATT&CK framework.
- Cryptography: Applied symmetric and asymmetric cryptography. Encryption and decryption using Python. DES, AES, RSA, Diffie Hellman
- Threat Analysis & Strategy and Governance Risk & Compliance (GRC)

Personal projects

- IP-lookups: extract IPv4 addresses from a text file, retrieve the GeoIP and RDAP info and interface with a MySQL database to manage this info (Python and MySQL).
- Implemented RSA from scratch in Python with keys up to 2048 bits.
- Developed vulnerable web applications to train myself in appsec
- MD5 collision detector to brute force a list of hashes (Python).
- Capture the flag: participation to CTFs held by Secureset, challenges on `overthewire.com`.

CERMICS lab, Ecole Nationale des Ponts et Chaussées.
May 2018 - Aug. 2018

(Center for Training and Research in MathematIcs and Scientific Computing).

- Research assistant in applied mathematics under the supervision of Frédéric Meunier on the colorability of Kneser graphs and other hypergraphs. Graph theory is essential to many topics of applied mathematics such as optimization or computer science (shortest path algorithms, allocations of resources).
- Writing of a scientific paper including the two major theorems resulting from my research work and many additional properties. This paper has been sent to mathematicians internationally

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Ecole Centrale de Lyon, Engineering diploma
Sept. 2016 - Mar. 2019

- MSc in Engineering and Computer Science
- BSc in Physics, Mathematics, Engineering and Computer Science
- Deep Learning - Prediction of the emotions induced by videos (Pytorch)
- Parallel computing in C++ - Implementation of the Game of Life.
- Implementation of a database manager software for a car dealership in Python and MySQL
- Use of Python for scientific computing
- Development from scratch of a copy of the famous app 2048 in C++ with QTCreator, of a multiplayer Pong game in Javascript and of a mobile game for Android in Java with Android Studio

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University Lyon 1, BSc in pure mathematics.
2016 - 2017

- General algebra, group theory, geometry
- Measure theory and integration, topology
- Calculus, differential equations
- Real analysis, complex analysis, matrix analysis
- Probabilities and statistics

Lycée Henri IV *Classe préparatoire MP** in Paris.
2013 - 2016

- First two years of BSc in the French education system

Additional skills

- Python, Bash, C/C++, Java, Javascript, MySQL, Flask
- Linux - Installation and use of several distributions (Ubuntu, Kali, CentOS ...).
- Git - Local use of Git linked to my Github for project management.
- LaTex - Use of LaTex for assignments and articles

Languages and achievements

- French, English (Fluent), German (Basics)
- GMAT 730/800 (top 4%)

Social Networks

GitHub: `github.com/g-mizrahi`

Linkedin: `linkedin.com/in/guilhem-mizrahi`