



Alexandre Adamski

neat.sh | github.com/NeatMonster
aadamski@quarkslab.com | 06 98 03 78 40

EDUCATION

TLS-SEC

MSc in Security and Networks
Advanced courses focused on networks and systems security, dispensed by security experts.
2016-2017 | Toulouse, France

INP-ENSEEIH

Engineering Degree in C.S.
C.S. and Applied Mathematics, Software Engineering specialty.
2014-2017 | Toulouse, France

COURSEWORK

THIRD YEAR

Cryptography
Software Vulnerabilities
System and Kernel Security
Hardware Security
Reverse Engineering
OSI Security Architecture
Wireless Networks
Secure Network Architecture
Network Security Protocols

SECOND YEAR

Concurrent Computing
Real-Time Computing
Middleware and Databases
Lang. and Compiler Design
Graph Theory, Formal Methods

FIRST YEAR

Imperative, Functionnal,
Object-Oriented Programming
Computers Architecture
Probability and Statistics
Linear Algebra and Optimization

SKILLS

LANGUAGES

10k < LOC
Java • Python • C • C++
1k < LOC < 10k
ASM • PHP • (No)SQL
HTML • CSS • JavaScript
LOC < 1k
OCaml • VHDL • MATLAB

I wrote a few challenges for the THCon CTF 2017. You find them (with their write-ups) at neat.sh/thcon.

EXPERIENCE

QUARKSLAB • Security Engineering Intern

Mar. 2017 – Sep. 2017 | Paris, France

- Implemented the Remote Attestation process of Intel SGX enclaves using mbed TLS; and developed a toy ELF/PE packer using this new codebase.
- Fuzzed open-source software packages, leading to CVE-2017-9742/9756.

COGNITEEV • Software Engineering Intern

Jun. 2016 – Sep. 2016 | Bordeaux, France

- Developed a ML app performing Named-Entity Recognition and wrote a Chrome extension to build datasets by categorizing tokens on webpages;
- Indexed Wikidata into Solr to allow for fast entity searching using FSTs.

ULB-BEAMS • Software Engineering Intern

Jun. 2015 – Aug. 2015 | Brussels, Belgium

- Wrote a RiSC-16 simulator to help visualise the levels of the internal signals of the CPU, and supporting the architectures with and without a pipeline;
- Currently used to teach students of the department the internals of CPUs.

ADDITIONAL EXPERIENCE

"NEATJVM" • Meta-Circular JVM Implementation

Mar. 2016 – May. 2016 | Toulouse, France | neat.sh/neatjvm

Java implementation of the Java Virtual Machine, following Oracle's specification and aiming to be meta-circular. It is more a proof of concept than a real JVM.

"MARIOEC2" • Neuro-Evolution Applied to Mario

Oct. 2015 – Nov. 2015 | Toulouse, France | neat.sh/marioec2

Implementation of a neuro-evolution algorithm that evolves agents learning how to play Mario from visual input; running on compute-optimized EC2 instances.

"INTEL8086" • Well-Documented IBM PC Emulator

Mar. 2015 – Jun. 2015 | Toulouse, France | neat.sh/intel8086

Small emulator, mainly of the Intel 8086 chip, able to run old code from the '80s. Development focused on making the code as easy as possible to understand.

"BEACON" • Lightweight and Efficient Game Server

Nov. 2014 – Feb. 2015 | Toulouse, France | neat.sh/beacon

Beacon is an alternative server software written in C++ for the popular video-game Minecraft, and designed to minimize memory and CPU usage.

"NOCHEATPLUS" • Advanced Game Security Solution

Apr. 2012 – Aug. 2012 | Bordeaux, France | neat.sh/nocheatplus

Java application that verifies exchanges between a server and multiple game clients. It was deployed on about 30000 personal servers when I handed it over.

You can find the source code of all of my personal projects on [my GitHub](https://github.com); you can also browse [my Gists](https://gists.github.com) to find some random snippets of code I wrote.

WRITINGS

- 50-page Internship Report | neat.sh/report
- Neuro-Evolution of A.T. Slides | neat.sh/slides
- Genetic Algorithms Poster | neat.sh/poster

LANGUAGES

French	Mother Tongue
English	Advanced Level
German	Beginner Level

This polyglot PDF is also a ZIP file containing the L^AT_EX template and images.