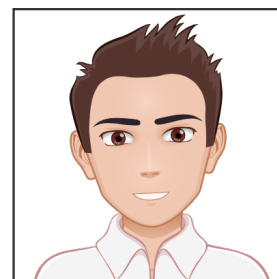# Youssouf **Drif**

NETWORK ENGINEER
Worldwide

✉ me@shynuu.io | 🏠 shynuu.io | 🐱 shynuu

Contact me for a more detailed résumé :)

Work Experience

IRT Saint Exupéry   *Toulouse, France*

PHD   *Feb. 2019 - Today*

- Research and development engineer in the collaborative project SUPER-G with the objective of the integration of the satellite into the 5G networks and beyond.
- Simultaneously working on my PhD on the application of Software Defined Networks (SDN)/Network Function Virtualization (NFV) on the satellite network: virtualization of satellite components.
- Participate in SSIG meetings and pushing the satellite backhaul solution in the 3GPP standard release 17/18.
- Design and development of a satellite-5G interconnection device based on the 3GPP standard using the P4/P4Runtime language.
- Deployment of 5G networks: Core Network (free5GC) and RAN (UERANSIM, OpenAirInterface).
- Design, development and deployment of a satellite-5G orchestration testbed with the following tools: Kubernetes, Docker, ETSI OSM, Open-VSwitch, P4, P4Runtime.
- Part-time lecturer in 5G networks at Engineering schools and University of Toulouse.

Airbus Defence and Space   *Toulouse, France*

R&D ENGINEER INTERN   *Mar. 2018 - Oct. 2018*

- Application of SDN and NFV concept to Satellite Networks. Studies of ETSI NFV MANO Framework, IETF NSH and OpenFlow.
- Development of a Proof of Concept to demonstrate the benefits of virtualizing the satellite network components.

Restologia Pte Ltd.   *Singapore*

SOFTWARE ENGINEER INTERN   *Jun. 2017 - Sep. 2017*

- Design and development of an internal software to manage collaborators using JEE, Spring and SQL.

Education

National Polytechnic Institute from Toulouse (Toulouse INP) - ENSEEIHT   *Toulouse, France*

RESEARCH MASTER DEGREE   *Sep. 2017 - Sep. 2018*

- Network Analysis: Network Science, Machine Learning
- Network Management: SNMP, WBEM
- Content Networks: Information Centric Networks (ICN), Content Delivery Networks (CDN), P2P
- Networks Virtualization: SDN, NFV
- Development of a CDN Architecture using SDN as a key enabler (Ryu, OpenVSwtich, Nginx)

National Polytechnic Institute from Toulouse (Toulouse INP) - ENSEEIHT   *Toulouse, France*

TELECOMMUNICATIONS & NETWORKS ENGINEER DEGREE - SPECIALITY BIG DATA INFRASTRUCTURE   *Sep. 2015 - Sep. 2018*

- OSI Model
- Networks and Protocol Security, L2/L3 VPN
- Performances Evaluation, Metrology, Traffic engineering (RSVP-TE, MPLS-TE)
- Overlay Networks: P2P (Gnutella, BitTorrent)
- Mobile Networks: GSM, UMTS, LTE, 5G
- Networks: WAN (X25, ATM, IP, SDH, PDH), MAN (Wi-Max), LAN (Token Ring, Ethernet, Wi-Fi)
- Routing protocols: BGP, OSPF, RIP, IS-IS
- Layer 1: Signal Processing (DFT, FFT, IFFT), OFDM, DMA, Equalization, ACM

La Martinière Monplaisir   *Lyon, France*

PREPARATORY CLASS FOR THE "GRANDES ÉCOLES" (CPGE) PHYSIC, TECHNOLOGY AND ENGINEERING SCIENCE (PTSI-PT)   *Sep. 2013 - Jun. 2015*

- 2 Years of intense preparation class studying theoretical mathematics, physics and engineering science to prepare to the CPGE contests in order to integrate a high ranked computer science engineering school.

Skills

DevOps	Docker, Kubernetes, Vagrant, Git, GNU/linux
Back-end	Gin-Gonic, gRPC, Flask, Quart
Front-end	VueJS, Flutter
Programming	Node.js, Python, Go, C, Dart, P4, LaTeX
Languages	French (native), English (professional), Arabic (notions)
Sport	Karate (7 Years), Mixed Martial Arts (1 Year)

Honors & Awards

2018	**Finalist – 2nd place**, Thales Arduino Contest - World Edition	*World*
2018	**Winner**, Thales Arduino Contest - France Edition	*Paris, France*
2013	**Finalist**, Olympics of Engineering Science - France Edition	*Paris, France*