

# ANISS MAGHSOUDLOU

## PhD Candidate

✉ aniss.maghsoudlou@gmail.com  
🐦 @aniss1371

🌐 maganiss

🌐 maganiss.github.io  
📍 Saarbrücken, Germany

🌐 maganiss



## EXPERIENCE

### Researcher (Ph.D. Student)

#### Max-Planck Institute for Informatics

📅 August 2018 – ongoing 📍 Saarbrücken, Germany

- Designed, developed and employed a large-scale data-intensive network provisioning system for ISPs called FlowDNS.
- Contributed to the design and development of a large-scale network monitoring system for ISPs and IXPs called Flowyager.
- Enhanced VPN traffic detection rate by 300% using active measurements of the whole IPv4 address space and IPv6 hitlists.
- Advanced the understanding of internet traffic using port number 0 by performing the first active measurement on this port, combined with large-scale flow-level analytics.
- Held tutorials, co-organized courses, and advised seminars and theses.

### Data Engineer

#### BENOCS GmbH

📅 March 2022 – June 2022 📍 Berlin, Germany

- Deployed and customized my self-designed FlowDNS, implemented in Golang, system to align with customer requirements.
- Enabled real-time management of data using FlowDNS which was not possible using Kafka and ClickHouse without huge pre-assumptions.

### Intern – Big Data Analytics

#### BENOCS GmbH

📅 June 2021 – November 2021 📍 Berlin, Germany

- Learned the complexities of data management including the large scale of data, data dependencies, and EU data privacy in large ISPs.
- Designed and prototyped a system to manage and correlate two important sources of data in ISPs including Netflow and DNS live streams, trying multiple options, called FlowDNS. Python and Spark did not work, so I implemented the system in Go using Go routines and channels.

## PUBLICATIONS

**PAM'23** *Characterizing VPN servers in the wild [submitted]*

A. Maghsoudlou, L. Vermeulen, I. Poese, O. Gasser

**ACM CoNEXT'22** *FlowDNS: Correlating Netflow and DNS Streams at Scale*

A. Maghsoudlou, I. Poese, O. Gasser, A. Feldmann.

**PAM'21** *Zeroing in on Port 0 Traffic in the Wild*

A. Maghsoudlou, O. Gasser, A. Feldmann.

**PAM'20** *Dissecting Internet Traffic on Port 0*

A. Maghsoudlou, O. Gasser, A. Feldmann

**IEEE TNSM'20** *Exploring Network-Wide Flow Data With Flowyager*

S.J. Saidi, A. Maghsoudlou, D. Foucard, G. Smaragdakis, I. Poese, A. Feldmann

## BIO

I'm a Ph.D. candidate at Max-Planck Institute for Informatics with extensive experience in designing and building data-intensive systems for network monitoring.

## STRENGTHS

Problem-solver

Analytical

Detail-oriented

Data Modelling

Big Data

## SKILLS

Python

Bash

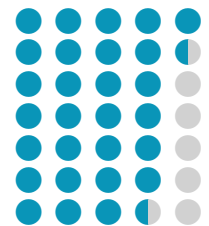
SQL

Go

ClickHouse

R

C/C++



## LANGUAGES

English

Persian

German



## EDUCATION

Ph.D. in Computer Science

Saarland University

📅 August 2018 – February 2023 (exp.)

- Supervisor: Prof. Anja Feldmann
- Thesis: Towards Uncovering Hidden Internet Traffic Characteristics

M.Sc. in IT Engineering -  
Computer Networks

Sharif University of Technology

📅 Sept 2014 – January 2017

- Thesis: Application of Software-defined Networking in Enterprise WLANs
- GPA: 4.0/4.0 (orig. 18.07/20)