

Master's Thesis

# Offloading 5G Network Functions into P4 Programmable Dataplanes

The 5G cellular networks are the state-of-the-art cellular networks for the coming 10 years. On the other hand, P4 is a promising language for programming packet processors. It can be used to describe the packet processing pipelines of different devices (FPGAs/ASICs/...).

In this work, we will explore and analyze the potentials of offloading specific 5G Network Functions into P4 programmable devices. The performance gains of this approach will be evaluated.

## Prerequisites

- Good Critical Thinking
- Basic Programming Skills
- Knowledge about P4 language and 5G is a plus.

## Advisors

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