Network Functions Placement into P4 Devices

P4 is a novel language designed for programming packet processors in a high-level language. Currently, it can be used to program different types of networking devices. [https://p4.org/](https://p4.org/)

Our goal in this thesis is to investigate the optimal placement of different network functions (or P4 programs) into different P4 devices based on the characteristics of the P4 programs and the P4 devices.

In this work, the student will formulate the placement problem as an optimization problem and solve it for different objectives and under the relevant constraints.

**Prerequisites**

- Good theoretical background on optimization.
- Background on P4 language is a plus.

**Advisors**

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