

## User Problem

### Design Space

- Parameters
- Constraints

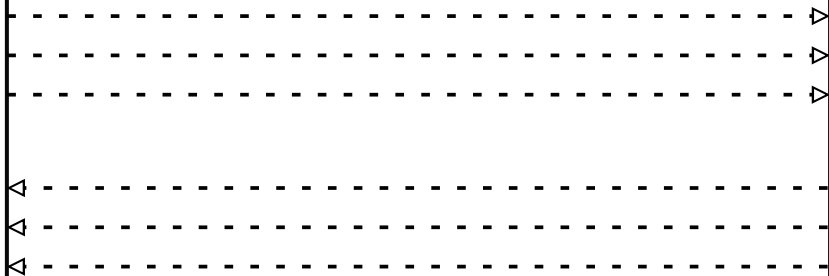
### Optimization Metrics

- Circuit Area
- DNN Accuracy
- Execution Time
- ...

### Local measurements

- Faster, secure
- Initial explorations, validation

1. Design Space specification:
  - Parameters, constraints, metrics
2. Local measurements
3. Code, dependencies for virtualization
4. Optimization method choice



1. List of experiments to run
2. Best configuration
3. Statistical Analyses
4. Remote measurements
5. Optimization method suggestions

API

DSEaaS

### Experimental Design

- Initial experiments
- Cost reduction

### Statistical Learning and Search Heuristics

- Where to explore next
- Exploit models

### Statistical Analysis

- Keep track of optimization
- Building & reusing models
- Data visualization

### Experiments Engine

- Virtualization
- Longer explorations