

Benchmark

Algorithm 0:

```

for g0 ← 0 : Gtop : Gmax - 1
  for g1 ← 0 : Gtop : Gmax - 1
    for h0 ← 0 : Htop : Hmax - 1
      for h1 ← 0 : Htop : Hmax - 1
        for r0 ← 0 : Rtop : Rmax - 1
          for r1 ← 0 : Rtop : Rmax - 1
            for r2 ← 0 : Rtop : Rmax - 1
              O(g0, g1, h0, h1, r0, r1, r2) :=
                H(g0, g1, h0, h1, r0, r1, r2) × W(g0, g1, h0, h1, r0, r1, r2)
  
```

Algorithm 1:

```

for g0 ← 0 : Gtop : Gmax - 1
  for g1 ← 0 : Gtop : Gmax - 1
    for h0 ← 0 : Htop : Hmax - 1
      for h1 ← 0 : Htop : Hmax - 1
        for r0 ← 0 : Rtop : Rmax - 1
          for r1 ← 0 : Rtop : Rmax - 1
            for r2 ← 0 : Rtop : Rmax - 1
              O(g0, g1, h0, h1, r0, r1, r2) :=
                H(g0, g1, h0, h1, r0, r1, r2) × W(g0, g1, h0, h1, r0, r1, r2)
  
```

Algorithm N:

```

for g0 ← 0 : Gtop : Gmax - 1
  for g1 ← 0 : Gtop : Gmax - 1
    for h0 ← 0 : Htop : Hmax - 1
      for h1 ← 0 : Htop : Hmax - 1
        for r0 ← 0 : Rtop : Rmax - 1
          for r1 ← 0 : Rtop : Rmax - 1
            for r2 ← 0 : Rtop : Rmax - 1
              O(g0, g1, h0, h1, r0, r1, r2) :=
                H(g0, g1, h0, h1, r0, r1, r2) × W(g0, g1, h0, h1, r0, r1, r2)
  
```

Unroll

Unrolling instances



```

for h0 ← 0 : Htop : Hmax - 1
  for h1 ← 0 : Htop : Hmax - 1
    for r0 ← 0 : Rtop : Rmax - 1
      for r1 ← 0 : Rtop : Rmax - 1
        for r2 ← 0 : Rtop : Rmax - 1
          O(g0, g1, h0, h1, r0, r1, r2) :=
            H(g0, g1, h0, h1, r0, r1, r2) × W(g0, g1, h0, h1, r0, r1, r2)
  
```

Unroll



Unroll



Projection

Projection instances

{<>, <>, ..., <>}

A projection

Projection

{<>, <>, ..., <>}

Projection

{<>, <>, ..., <>}

Projection

{<>, <>, ..., <>}

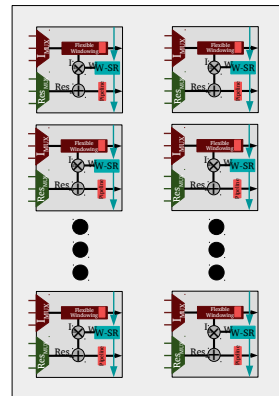
Selection

Selected projections

{<>, <>, ..., <>}

Generation

MLBlock-M



Projections	Configurations
P0 < >	Config 0
P1 < >	Config 1
P2 < >	Config 2
⋮	⋮