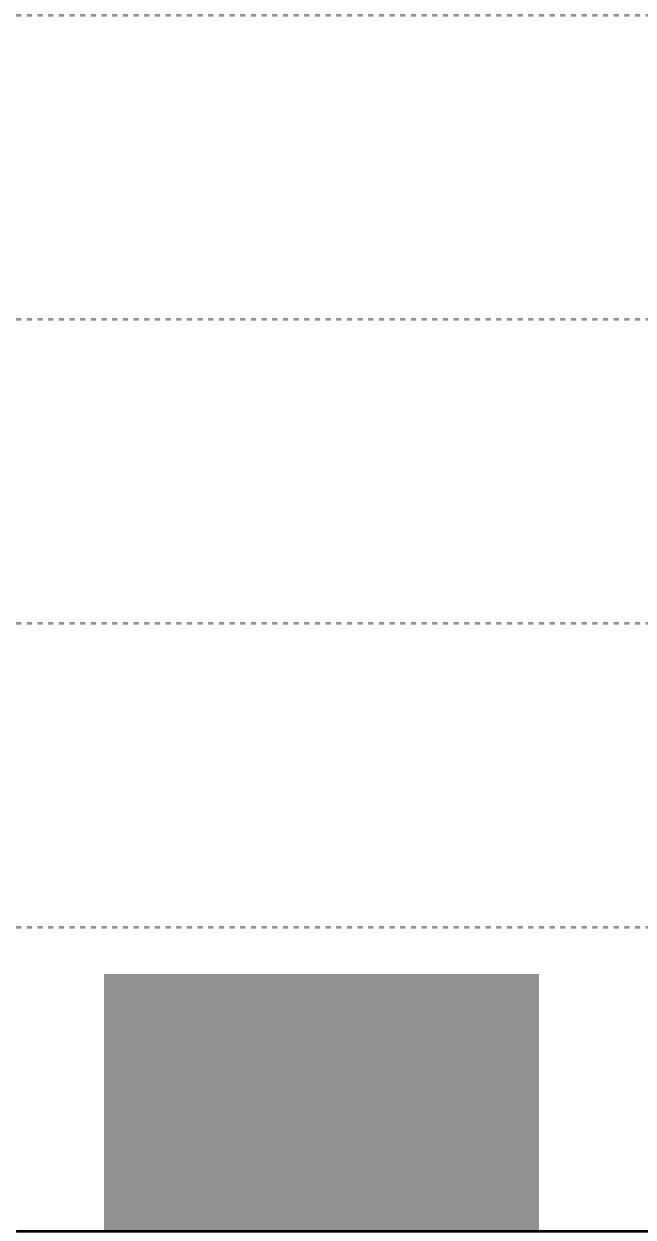# Microarchitectural Implications of **Event-driven** Server-side Web Applications

Yuhao Zhu
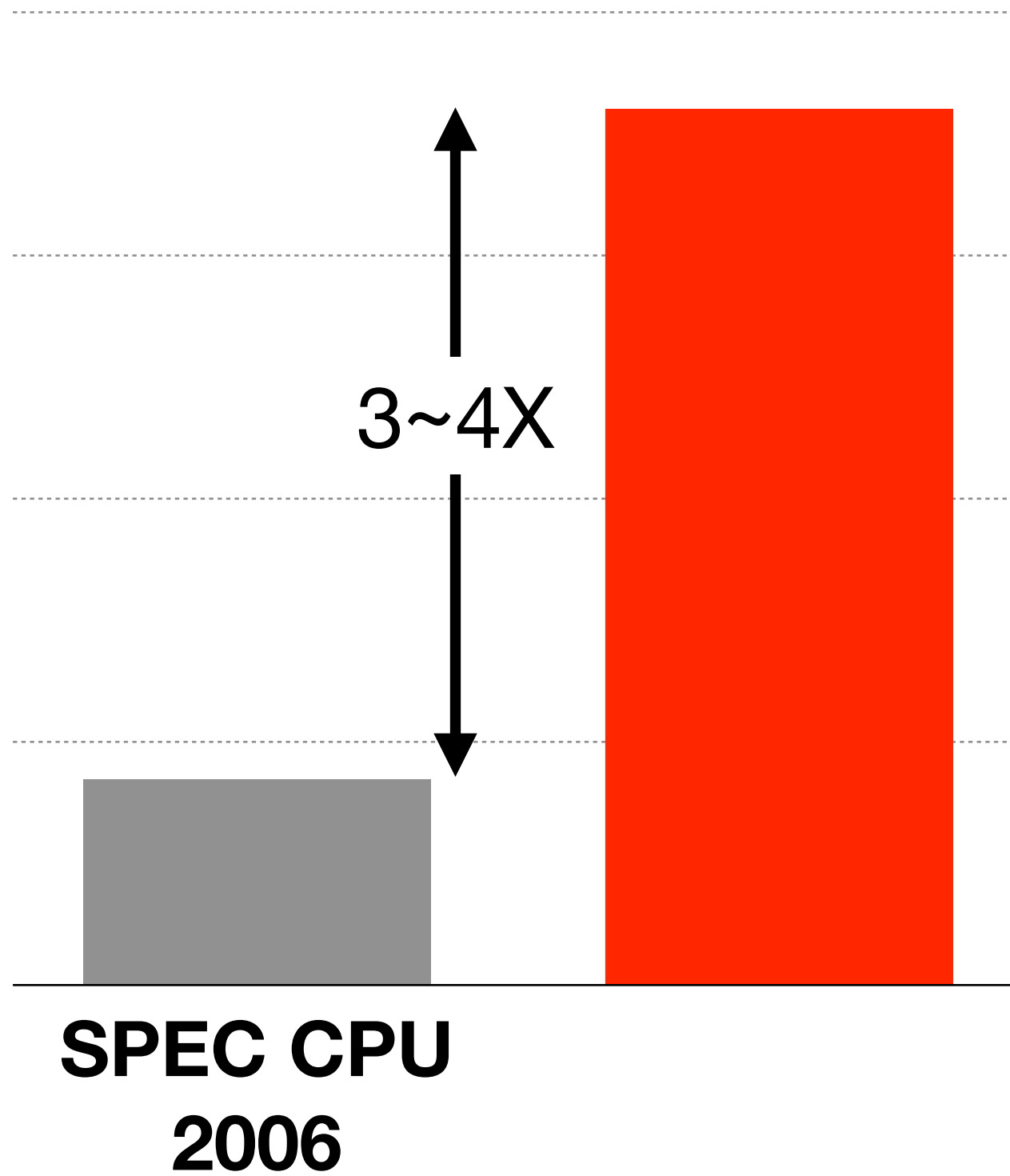UT Austin
with Daniel Richins, Matthew Halpern, Vijay Janapa Reddi

TEXAS
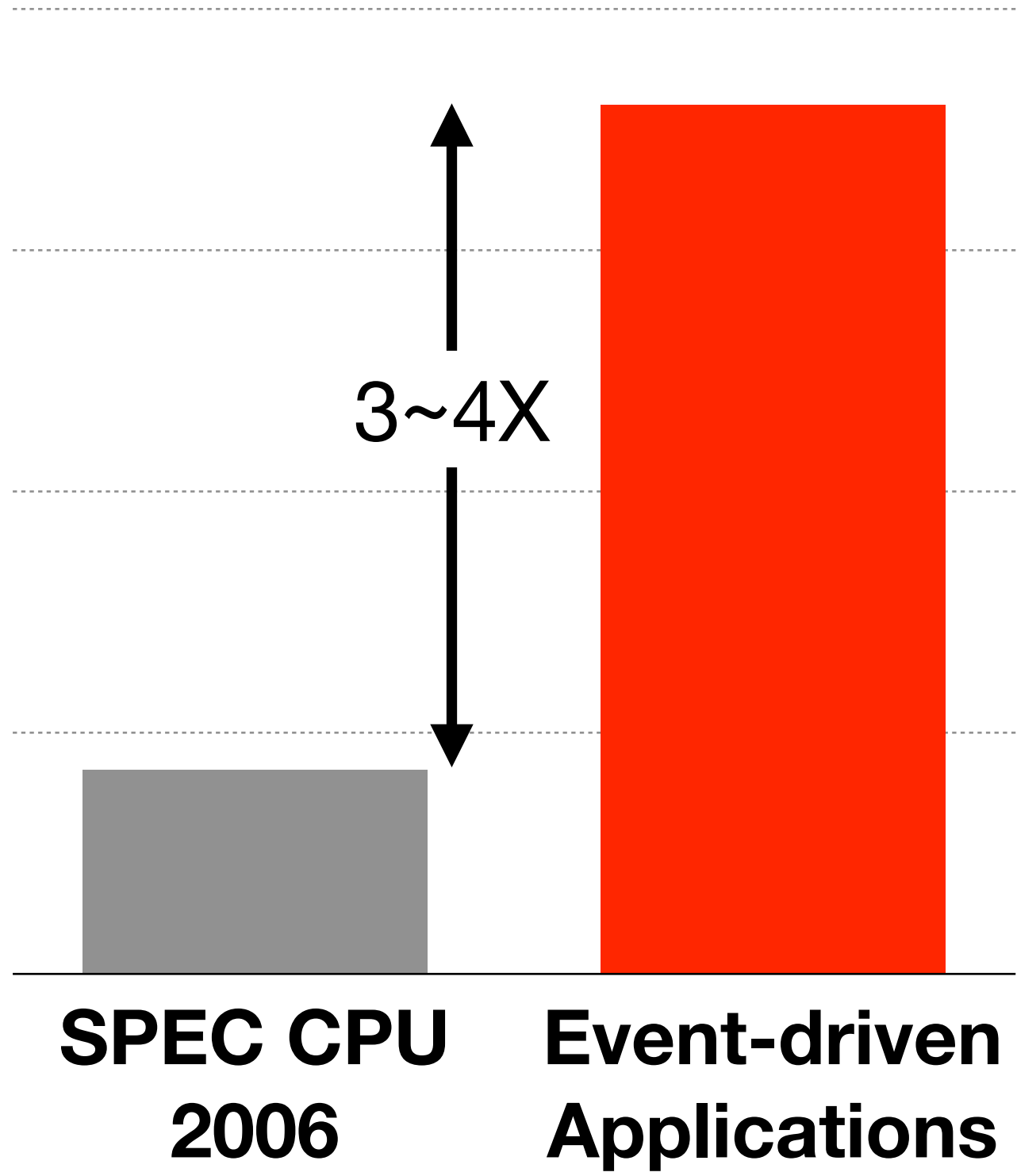The University of Texas at Austin

MICRO 2015

1

L1-I$ MPKI

SPEC CPU 2006

L1-I$ MPKI

3~4X

SPEC CPU
2006

L1-I$ MPKI

3~4X

SPEC CPU 2006

Event-driven Applications

Web

Mobile

Cloud

Internet-of-Things

Web   Mobile   Cloud   Internet-of-Things
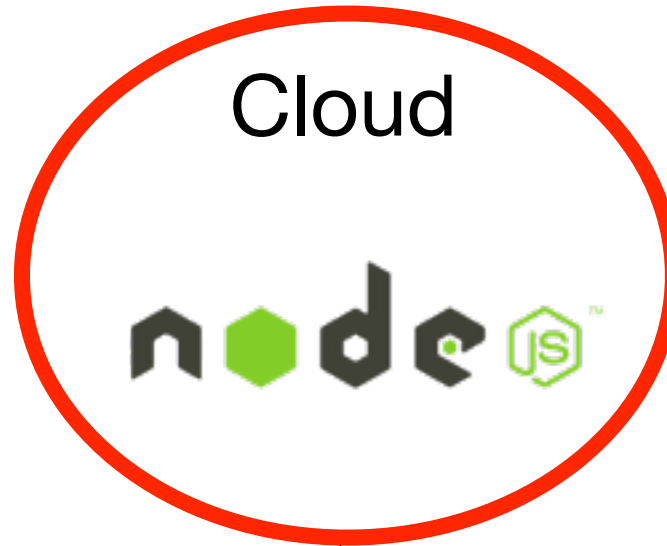
Web

Mobile

Cloud

Internet-of-Things

Root-cause
Analysis
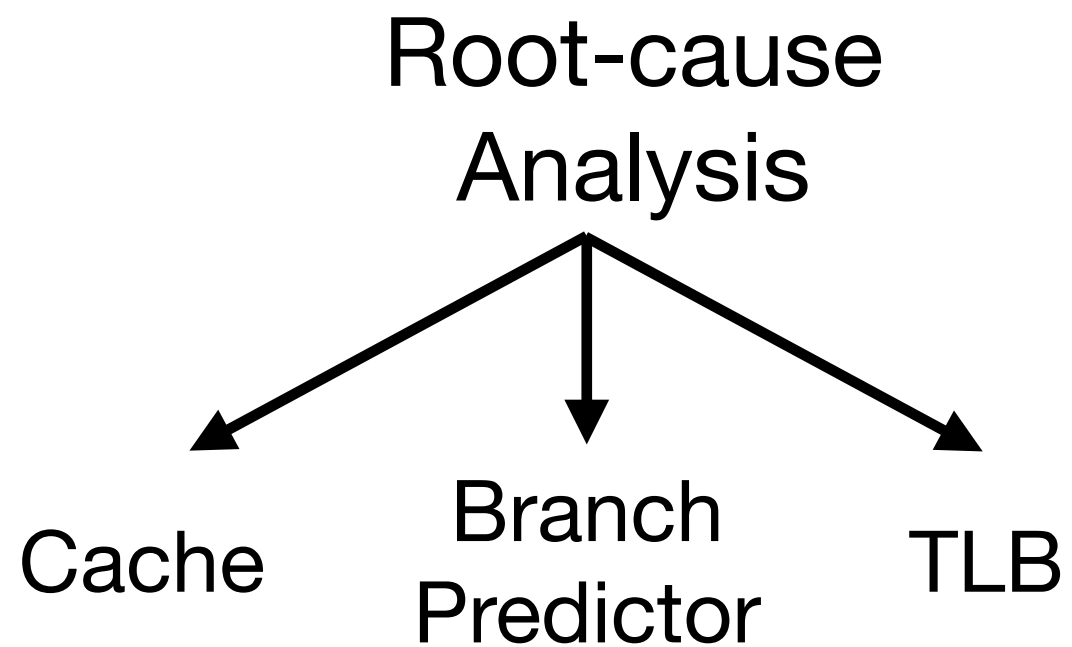
Cache

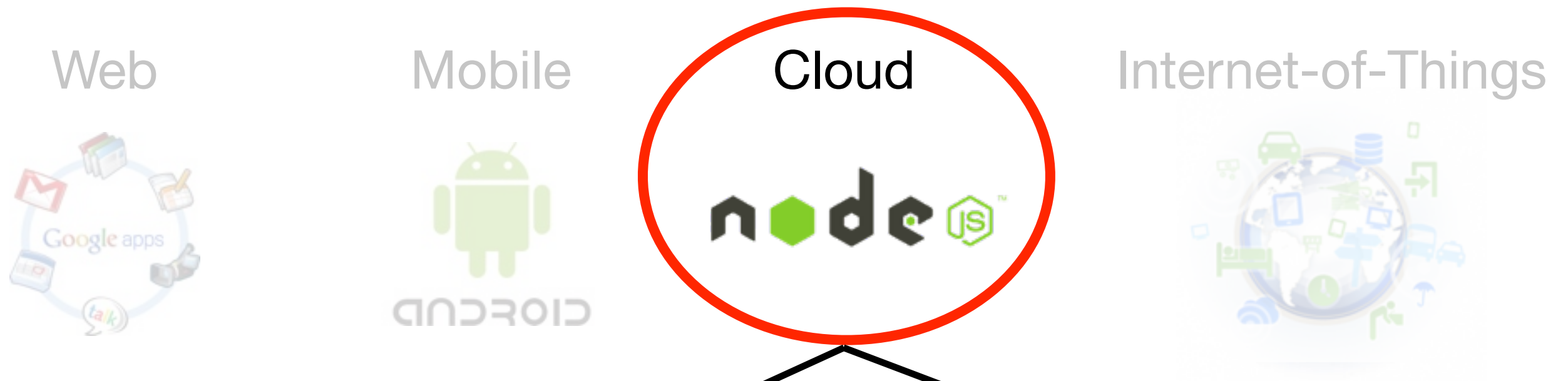Branch
Predictor

TLB

Web

Mobile

Cloud

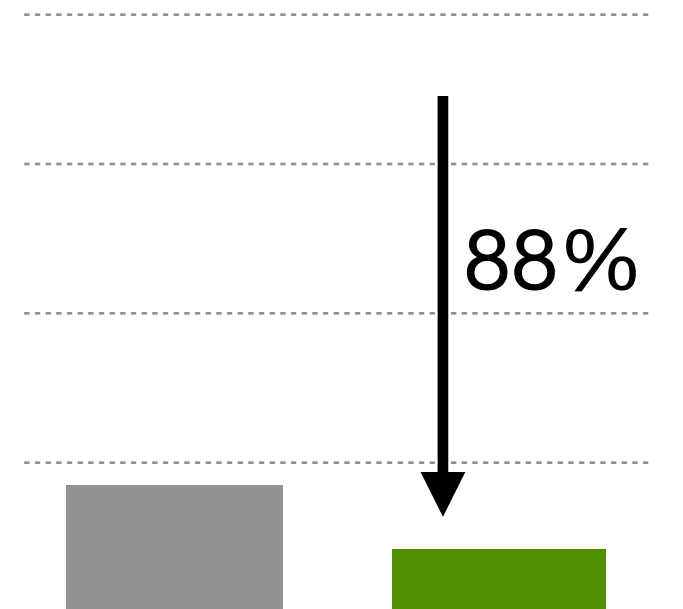Internet-of-Things

Root-cause Analysis

Optimizations

Cache

Branch Predictor

TLB

Web

Mobile

Cloud

Internet-of-Things

Root-cause
Analysis

Optimizations

Cache

Branch
Predictor

TLB

L1-I$ MPKI

88%

SPEC
CPU

Node.js

Last Day

Last Session

Last Presentation

Microarchitectural Implications of **Event-driven** Server-side Web Applications

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