MIPS

[Slides Adapted from Rajeev Balasubramonian's Slides on MIPS for CS 3810 at University of Utah]

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Aftab Hussain
University of California, Irvine
What is an ISA?
High Level Implementation

Machine Level Implementation

Processor Level Implementation
The ISA - defines an abstract model for machine level programming, which defines:
- how data is stored and addressed
- instruction set
RISC and CISC

RISC vs. CISC, Eric Roberts, Stanford University,
https://cs.stanford.edu/people/eroberts/courses/soco/projects/risc/risciscisc/
What role does an Instruction Set serve?

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(Some Examples of MIPS instructions - Slide 18 - 21)
Operand locations
Register
File
How many addresses can a 32-bit word encode?
Accessing the Memory

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(Slide 24 - 25)
Immediate Operands
Thank you