Lecture 28: Course Evaluation Beyond 370 Benjamin's Research

CSE 370, Autumn 2007 Benjamin Ylvisaker

Course Evaluation

- Numbers are useful
- Comments are even better

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Administrative Stuff

- Review session this afternoon at 2 in CSE 303
- Final exam Monday morning at 8:30 in EE 037
- Lab check-off opportunities entirely up to lab TAs (until next Friday)
- Unreturned/uncollected material will be available during the exam
 - Will be recycled shortly thereafter

Computer Engineering at UW Beyond 370

- 378: Much more computer organization
- 466: Embedded systems software
- 467: Advanced hardware design
- 468: VLSI (not taught often)
- 471: Advanced computer organization
- 477: Digital system design

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Computer Engineering in EE

• EE 331: Devices and Circuits I

• EE 341: Signals and systems

• EE 476: Layout!

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More Distantly Related Courses

• 401: Compilers

• 451: OS

• 461: Networks

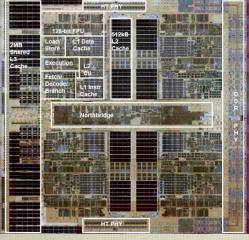
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Rant About Research

- UW CSE is a research-oriented department
- Research is qualitatively different from taking classes
 - Some students with less than stellar grades do excellent research
- Take advantage of the opportunity to see what working on a research team is like

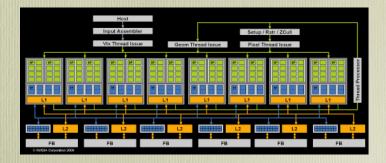
Motivation for Benjamin's Research



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GPU Block Diagram



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Some Algorithms Are/Have:

- Many independent operations
- Repetitive
- Predictable
- Many operations per unit of primary input data
- A small working set of data
- A substantial total amount of work

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Accelerators

- These algorithms can be run much faster and more energy efficiently by coprocessor accelerators
 - FPGAs, GPUs
 - -10× is reasonable for many applications
- Accelerators are much harder to program

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Abstract Programming Models Main Memory Workspace Memory Processing Elements University of Washington, Comp. Sci. and Eng. 12 CSE 370, Autuma, 2007, Lecture 1

Thanks for Your Attention

- Good luck on the final exam
- Have a good holiday

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