

Introduction to Parallel and Distributed Processing

Course Overview

Jaroslav 'Jaric' Zola
<http://www.jzola.org/>









Instructor

- Dr. Jaroslaw 'Jaric' Zola
Davis 335, Open door policy

www.jzola.org

www.linkedin.com/in/jaroslawzola

twitter.com/rzolau

What You Will Learn

- Basic techniques to analyze parallel algorithms and codes
- Techniques to program multi- and many-core systems, and distributed memory clusters
- Basic methods to design parallel algorithms

Why Do We Care

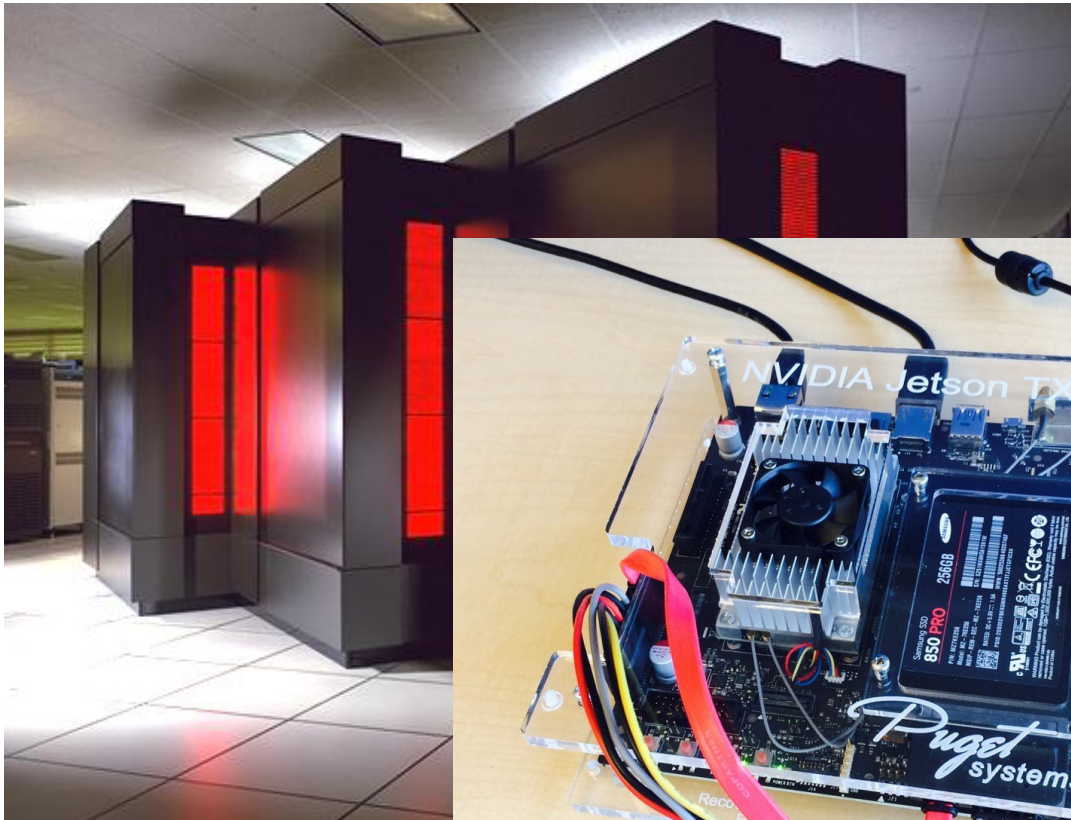


Why Do We Care

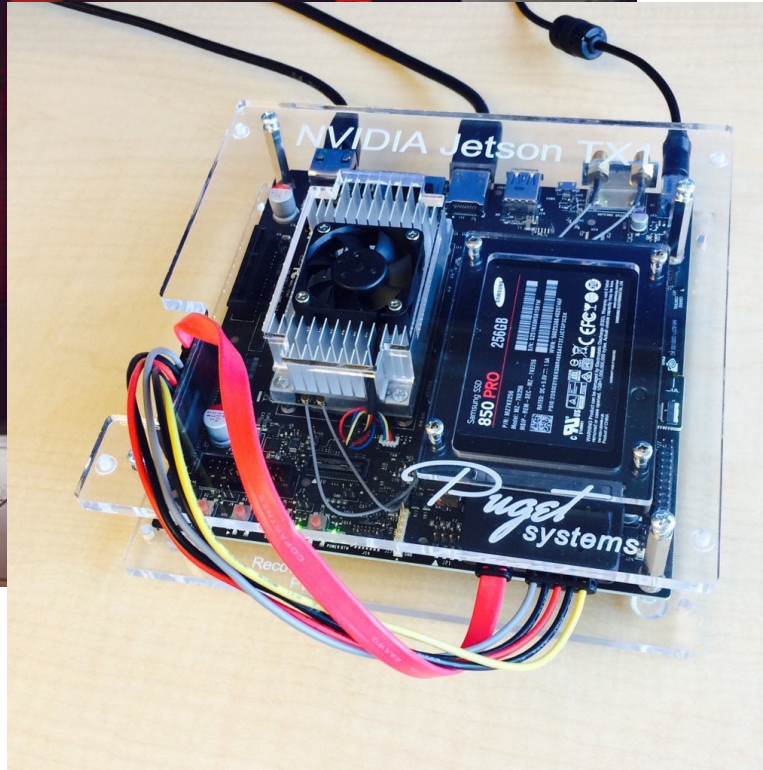


Thinking Machines CM-5
Cost: \$50,000,000
Performance: 130 GFLOPs
Size: 1024 cores

Why Do We Care



Thinking Machines CM-5
Cost: \$50,000,000
Performance: 130 GFLOPs
Size: 1024 cores



NVIDIA Jetson TX1
Cost: \$300
Performance: 1 TFLOPs
Size: 4 + 256 cores

Why Do We Care

- Current processors are inherently parallel at multiple levels – it is a waste not to use this parallelism
- Many important problems in science and engineering require computational power beyond single computer

Course Outline and Timeline

- <https://www.jzola.org/intropdp/UB-IntroPDP-Syllabus.pdf>
- Important dates:
 - mid-term exam: in-class around 09/29/2017
 - final exam: 12/15/2017, 3:30-6:30pm, Cooke 127A
- 4 assignments: released on Monday, usually 3 weeks per assignment

Course Grading

- Exam component: 20% midterm exam, 30% final exam
- Assignments: 50% programming assignments
late submission ($\leq 24h$) – 50% deduction
- Different points-to-grade for CSE470 and CSE570
- There are extra points opportunities!
see syllabus!

Course Resources

- You will be granted access to CCR for the course duration
<https://ubccr.freshdesk.com/support/solutions>
- Web page: <http://www.jzola.org/intropdp/resources>
user: `intropdp`
password: `IntroPDP`
- Vagrant Development Environment

How To Communicate

- Open door office hours: come whenever you want, if I am available you have my attention
- Official office hours: Wed 2-4pm
- Email, add subject: [IntroPDP]

Academic Integrity



Academic Integrity



Academic Integrity



Academic Integrity

- Plagiarism, copying, etc.
 - No mercy, no begging, no exceptions
 - Automatic 'F' on the entire course
 - Applies to all involved parties

Final Notes

- Ask often, ask a lot
- Enjoy!