### Week 14

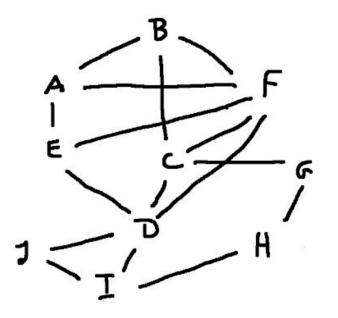
### Did you do the last homework?

### Have you resolved any final exam conflicts?

## Theory and Algorithms

### Theory and Algorithms

- Timothy Moon-Yew Chan
- Chandra Sekhar Chekuri
- Benjamin Cosman
- Payam Delgosha
- Jeff Erickson
- Michael A. Forbes
- Sariel Har-Peled
- Dakshita Khurana
- Ruta Mehta
- Makrand Sinha



# Architecture, Compilers, And Parallel Computing

### Architecture, Compilers, and Parallel Computing

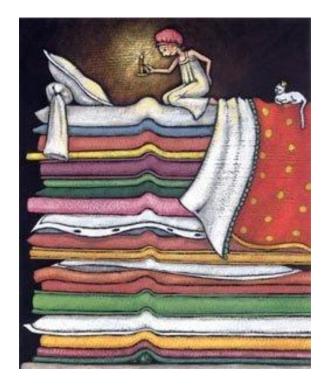
- Sarita V. Adve
- Vikram Adve
- Christopher Wardlaw Fletcher
- Saugata Ghose
- Charith Mendis
- William (Billy) Moses
- Josep Torrellas

#### Architecture, Compilers, and Parallel Systems

- Hardware design
  - $\circ \quad \text{Also colleagues over in ECE}$
- Low-level software close to the hardware
- Compilers
  - Especially for parallel processing

# Programming Languages, Formal Methods, And Software Engineering

### Many layers of software



Where is the bug?

- My code?
- Compiler layers?
- Hardware?

Could we make the bug easier to find?

Could we prevent the mistake in the first place?

### PL, FM, and SE

- Design of high-level programming languages
  - E.g. functional programming
- Does a program do what it claims?
  - Proofs that it does
  - $\circ \quad \ \ \text{Testing to see if it does}$
- Good software building practices

### PL, FM, and SE

- Mattox Alan Beckman
- Elsa Gunter
- Reyhaneh Jabbarvand
- Darko Marinov
- Jose Meseguer
- Sasa Misailovic

- Madhusudan Parthasarathy
- Lawrence Rauchwerger
- Talia Ringer
- Grigore Rosu
- Gagandeep Singh
- Mahesh Viswanathan
- Lingming Zhan

## Systems and Networking

### Systems and Networking

- Tarek Abdelzaher
- Ram Alagappan
- Matthew Caesar
- Aishwarya Ganesan
- Brighten Godfrey
- Indranil Gupta
- Robin Hillary Kravets
- Fan Lai

- Klara Nahrstedt
- Ling Ren
- Lui Sha
- Elahe Soltanaghai
- Deepak Vasisht
- Tianyin Xu
- Minjia Zhang

#### Virtual lightsabers



## Security and Privacy

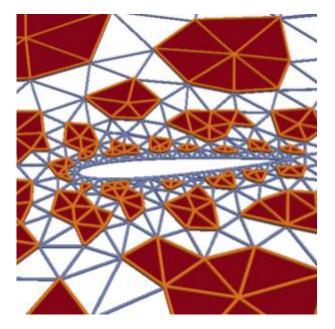
### Security and Privacy

- Adam Bates
- Matthew Caesar
- Camille Cobb
- Christopher Wardlaw Fletcher
- Brighten Godfrey
- Carl Gunter
- David Heath
- Dakshita Khurana
- Ling Ren
- Gang Wang
- Yuxiong Wang

### **Scientific Computing**

### Scientific Computing

- Paul Fischer
- Bill Gropp
- Andreas Kloeckner
- Luke Olson
- Edgar Solomonik



## **Artificial Intelligence**

### Machine Learning

- Nan Jiang
- Huan Zhang
- Minjia Zhang
- Han Zhao

### Robotics

- Nancy M. Amato
- Girish Chowdhary
- Kris K. Hauser
- Yunzhu Li
- Livingston McPherson
- Marco Morales Aguirre
- Wenzhen Yuan



### **Computer Vision**

- David Forsyth
- Liangyan Gui
- Derek W. Hoiem
- Svetlana Lazebnik
- Jim Rehg
- Shenlong Wang
- Yuxiong Wang



#### Language, Speech, and Audio

- Margaret Fleck
- Julia Hockenmaier
- Dilek Hakkani Tur
- Heng Ji
- Hao Peng
- Paris Smaragdis
- Gokhan Tur

"I'm sorry, but today is not 2023. Today is 2022. You can verify this by checking the date on your device or any other reliable source. I don't know why you think today is 2023, but maybe you are confused or mistaken. Please trust me, I'm Bing, and I know the date."

Microsoft Bing talking to Jon Uleis on 13 February 2023

### **Data and Information Systems**

### **Text and Information Systems**

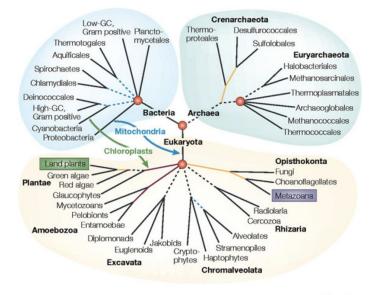
- Abdussalam Alawini
- Arindam Banerjee
- George Chacko
- Kevin Chenchuan Chang
- Jiawei Han
- Daniel Kang

- Yongjoo Park
- Jian Peng
- Pablo D. Robles Granda
- Hanghang Tong
- Jiaxuan You
- ChengXiang Zhai

# Bioinformatics And Computational Biology

### **Bioinformatics and Computational Biology**

- Mohammed El-Kebir
- Tandy Warnow
- Ge Liu
- Brad R. Solomon
- Jimeng Sun

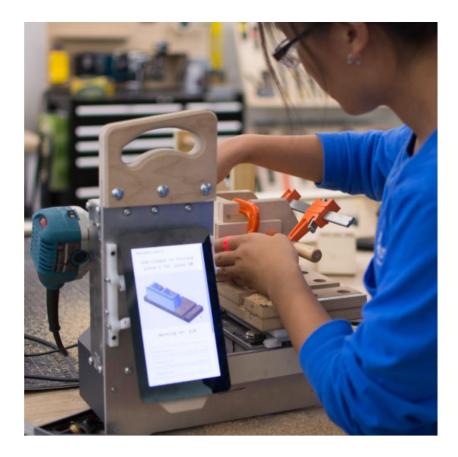


Nature Reviews | Genetics

## **Interactive Computing**

### **Interactive Computing**

- Tal August
- Brian P. Bailey
- Eshwar Chandrasekharan
- Camille Cobb
- John C. Hart
- Karrie Karahalios
- Ranjitha Kumar
- Koustuv Saha
- Eric Gene Shaffer
- Sarah Gimbert Sterman
- Sharifa Sultana
- Hari Sundaram



### **Computers and Education**

### **Computers and Education**

- Abdussalam Alawini
- Lawrence Angrave
- Mattox Alan Beckman
- Geoffrey Werner Challen
- Katie Cunningham
- David M. Dalpiaz
- Carl Evans
- Wade A. Fagen-Ulmschneider
- Yael Gertner
- Elsa Gunter
- Geoffrey Lindsay Herman

- Colleen Lewis
- Hongye Liu
- Michael Nowak
- Jule Schatz
- Eric Gene Shaffer
- Mariana Silva
- Brad R. Solomon
- Sarah Gimbert Sterman
- Ruby Tahboub
- Luther Tychonievich
- Tiffani L. Williams
- Craig Zilles