Final Words

Hsuan-Tien Lin

Dept. of CSIE, NTU

June 20, 2013

Before the Midterm

- Basics of DSA/C++
- Arrays: dense, sparse, matrix
- Linked Lists: singly, circular, doubly
- Analysis Tools
- Stacks & Queues: expression parsing
- Containers
- Trees: general, binary, traversal, heap

After the Midterm

- Hashing: chaining, probing, dynamic
- Skip Lists
- Advanced Search Trees: AVL, 2-3-4, RB
- Sorting: bubble, selection, insertion, shell, merge, heap, quick [BST], counting, radix
- Graphs: DFS, BFS, shortest path

很好: Hard Working Students

- challenging homework/class, but **many of you work hard**
- very good homework performance, beyond expectation!

很好: Super TAs

- many homework problems—**very difficult to grade**
- TAs: enthusiastic and worked lots more than needed

很好: Active Instructor

- high pressure to try to teach the whole book as much as possible
  —**especially when students don't laugh when hearing jokes**
- instructor still active and very persistent in telling jokes

How to Be an Excellent Programmer?

ability / characteristic	related courses
sincere, communication, work hard, …	
domain knowledge	

language feature
• workable program
• bug-free program
  e.g., C# property, DateTime.Now
• most suitable feature
  e.g., if vs. switch statements
	Programming Language
	(Compiler)
	(Operating System)
	(Computer Architecture)

program behavior	Data Structure Algorithm

API, library
• simple API
  e.g., Date, Calendar, GregorianCalendar
• complex API, with design concept
  e.g., swing's event/listener, RMI	

experience • write program by yourself • trace other's real & good program	(Data Structure) (Algorithm)

Most Important of All: Never Stop Learning!

http://www.books.com.tw/exep/prod/booksfile.php?item=0010464414

THANK YOU!!