

Final Words

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Before the Midterm

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

After the Midterm

- Heap
- Hashing: chaining, probing, dynamic
- Skip List
- Advanced Search Trees: AVL, 2-3-4, RB
- Sorting: bubble, selection, insertion, shell, merge, heap, quick [BST], counting, radix

很好: Hard Working Students

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

Three Excellent Things in the Course (2/3)

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 two classes together under bad health
—**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 <ul style="list-style-type: none">• 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 <ul style="list-style-type: none">• simple API e.g., Date, Calendar, GregorianCalendar• complex API, with design concept e.g., swing's event/listener, RMI	
experience <ul style="list-style-type: none">• write program by yourself• trace other's real & good program	(Data Structure) (Algorithm)

Never Stop Learning, and Don't Limit Yourself!

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

獻給還在大學裡苦惱的同學們，尤其是今晚想幹 IT 這一行的人
——幹 IT 小小鳥，來自卡內基梅隆、哥倫比亞、威斯康星、密西根、或波士頓
各大學中這名英雄，在這些中經過努力
收買親愛的師長同學們
本科不畢業，憑著少許錢，靠自己的真誠，並關心社會
畢業後等錢失業，自己靠自己養活



我是一隻 IT 小小鳥



浙江大學 蔡學軍 編譯

<http://csiecomm.blogspot.tw/>

THANK YOU!!