The Computer Science Major

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How Many Computers Do You Own?
You’re wrong.
Computers’ Changing Role

ENIAC, 1946
Environment and humans subservient to computer

BMW 745i, 2002
Computers subservient to humans and the environment
What is Computer Science About?

Computer Science ≠ Programming
What is Computer Science About?

Software and systems
Hardware and architecture
Theory
Artificial Intelligence
User Interfaces
Multimedia
Model of the Cathedral of St. Pierre, Beauvais, France.
CS Research at Columbia

Mobile Augmented Reality on the Columbia Campus
Omnidirectional camera for video conferencing
Other Topics at Columbia

Security (Keromytis)
Embedded systems (Edwards)
Networking (Misra, Yemini, Schulzrinne)
Databases (Ross)
Internet search (Gravano)
Multimedia: vision (Nayar, Kender)
What’s the Major Like?

10 required core courses

+ One track:

  Systems · Theory

Intelligent systems · General CS

+ Technical Electives
The Core

COMS W1007: Intro to computer science
COMS W3137: Data structures and algorithms
COMS W3203: Discrete math
COMS W3210: Scientific computation I
COMS W3824: Computer organization
COMS W3157: Advanced Programming
COMS W3251: Scientific computation II
COMS W3261: Computability
COMS W4701: Artificial intelligence
COMS W4115: Programming Languages and Translators
Now What?

Our website: http://www.cs.columbia.edu

Freshman/Sophomore advisors

The Bulletin

Fellow Students:

- TAs
- Upperclassmen
- ACM student chapter
Thank you