COMPUTER SCIENCE

Introduction to Computer Science at Stony Brook
Topics for Today

- Stony Brook Undergraduate Computer Science program
  - Academics
  - Career options
  - Questions on any aspect of Stony Brook Computer Science are welcome
Stony Brook CS Department

- Highly ranked program
- Large department (50+ faculty members and about 800 UG majors)
- National recognition in many areas (security, visualization, logic, wireless networks, etc.)
- Honors program
- Degrees
  - BS, MS, PhD - Computer Science
  - BS – Information Systems
New CS Building

- Opened Fall 2015
- State of the art classrooms, labs, conference rooms, and offices
- Student lounges and work areas
- Designed for faculty/student interaction
Computer Science Careers

• High demand for Computer Science grads
• Typically ranked as a top-paying job for new BS grads
• U.S. Bureau of Labor Statistics (BLS) predicts computing-related occupations will grow about 24% per year

Causing large increases in enrollments
Teaching Vs. Research University

- Programs tend to be very similar in first 2-3 years
- Opportunity for undergraduate research at a research university
Curriculum Overview

- Computer Science (45%)
- Mathematics (15%)
- Natural Science (10%)
- General Education (20%)
- Free Electives (10%)
Specializations

- Computer Security
- Game Programming
- Human-Computer Interaction
- System Software Development
Game Programming Contest
Computer Science Honors Program

Accelerated research oriented program for our top students

• Specialized honors courses
• Small classes
• Accelerated program
• More upper division electives
• Senior research projects
• Scholarships
• About 80 students total
• About 20 freshman each year
• Strong support from faculty and university
• Faculty involvement with students – especially in small classes
Honors Curriculum

- Accelerated introductory sequence
  - Programming
  - Mathematical Foundations
- More time to explore advanced CS topics
- Example Honors Courses
  - Algorithms
  - Database Systems
  - System Fundamentals
  - Theory of Computation
Undergraduate Research Project

Honors program students complete a 2-semester research project with a faculty mentor
Internships

- Virtually all internships are paid (typically $12/hour to $38/hour)
- Option to take for credit
- Overall GPA is important

Companies

- National (e.g., Google, Microsoft, IBM, Apple)
- Financial (e.g., Goldman Sachs, JPMorgan Chase)
- Long Island software (e.g., Applied Vision)
- On-campus (department IT support)

Summer internship between 3rd and 4th year is important
After Graduation

• Graduate School
  • Top CS schools

• Employment
  • Software development
  • IT support
  • Security
Questions