

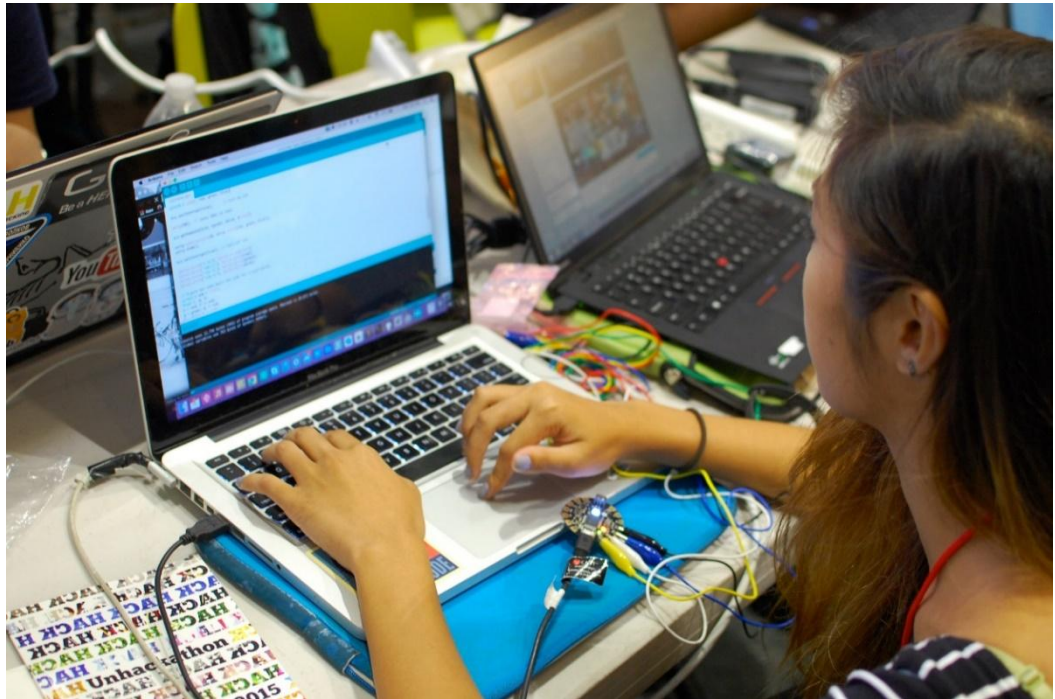
COMPUTER SCIENCE

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



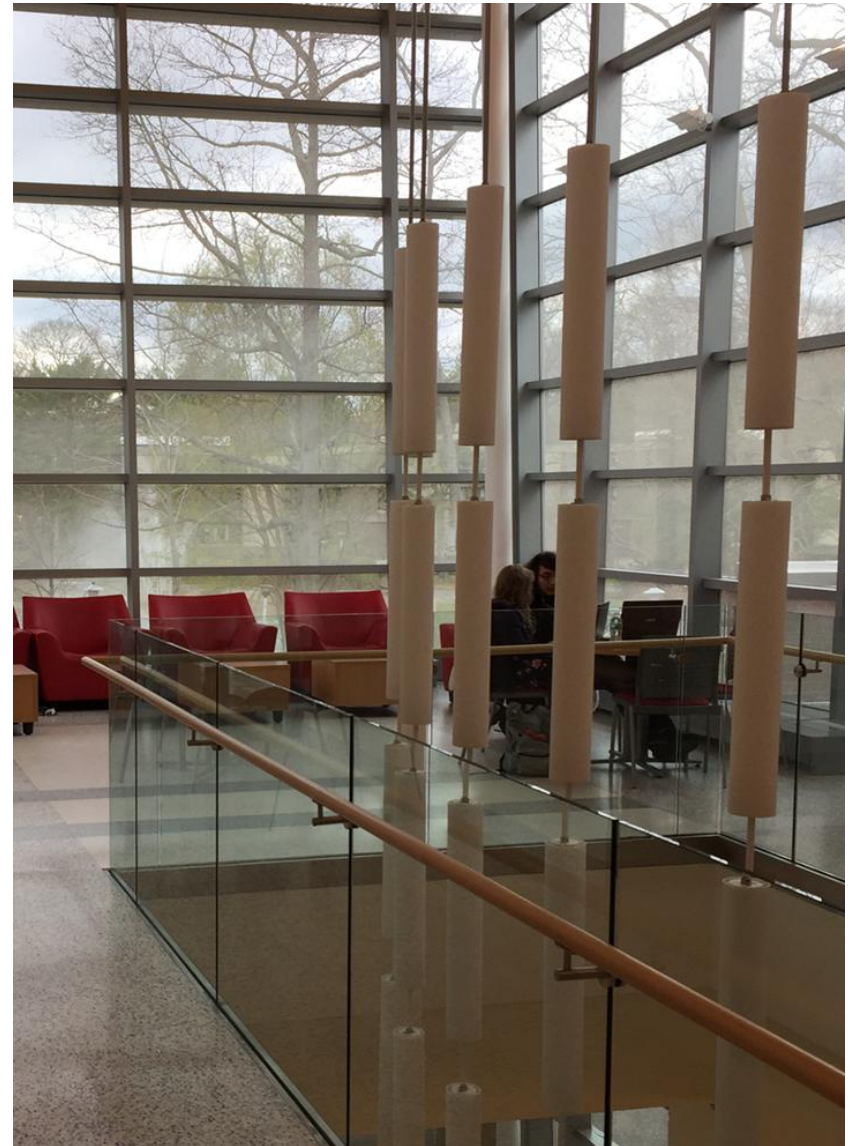
Stony Brook CS Department

- 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

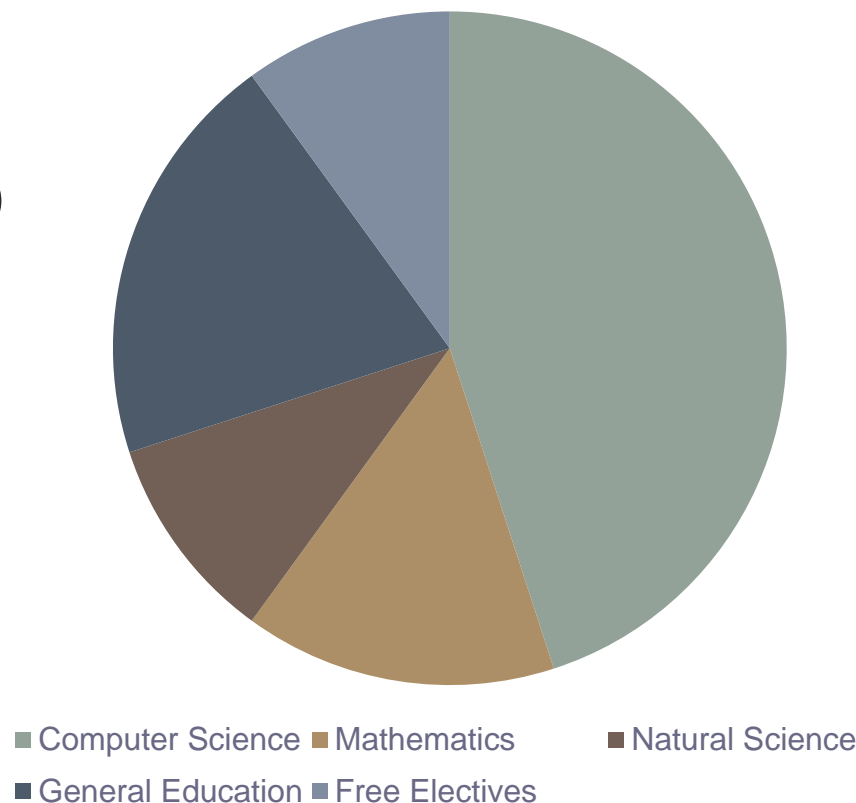
- Programs tend to be very similar in first 2-3 years
- Opportunity for undergraduate research at a research university



Curriculum Overview

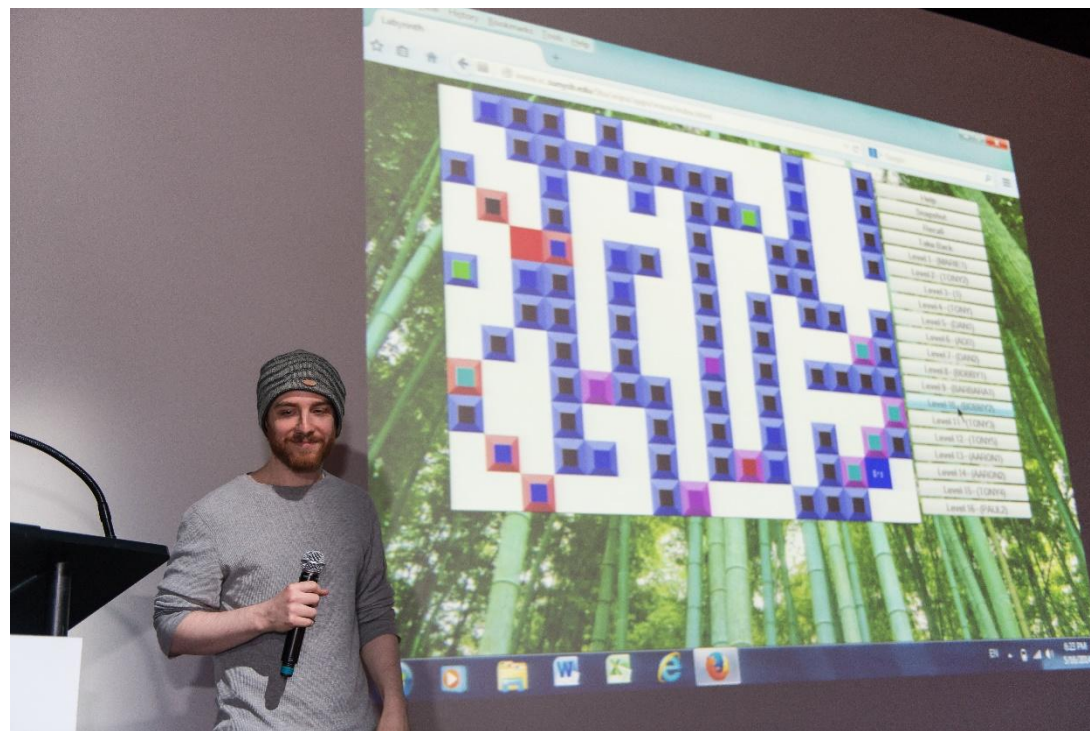
- Computer Science (45%)
- Mathematics (15%)
- Natural Science (10%)
- General Education (20%)
- Free Electives (10%)

Curriculum Components



Specializations

- Computer Security
- Game Programming
- Human-Computer Interaction
- System Software Development



Game Programming Contest



Computer Science Honors Program

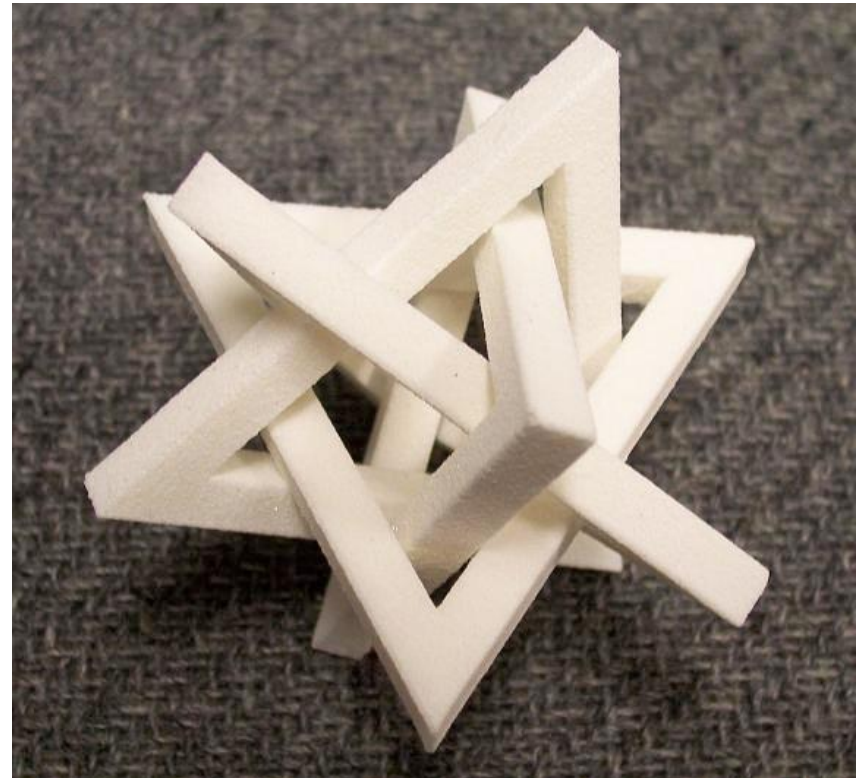
Accelerated research oriented program for our top students

- 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



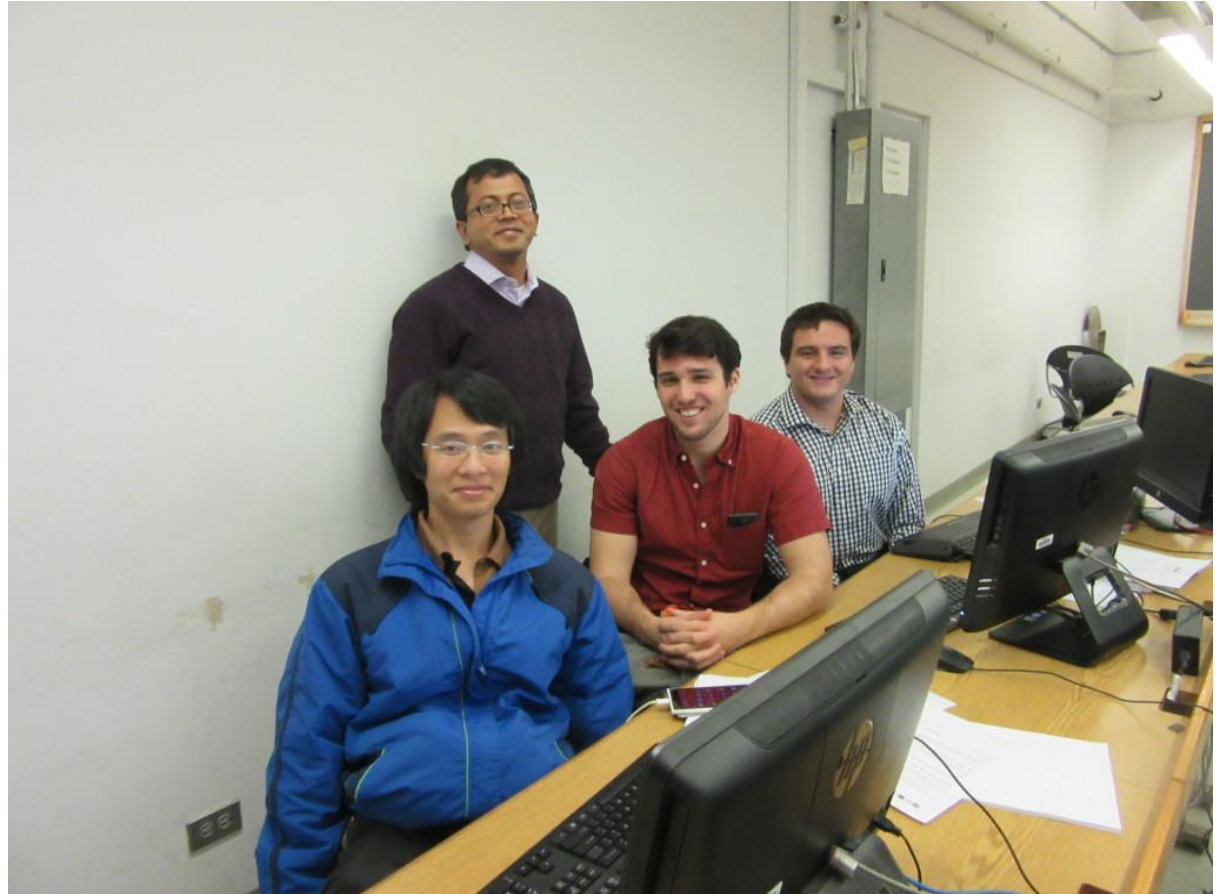
Honors Curriculum

- 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

