# Graduate Programs in Dept of Computer Science Univ. of Texas at San Antonio

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#### Overview

- Two graduate degrees:
  - ▲ Master of Science (MS) in Computer Science
  - ▲ PhD in Computer Science
- Currently, there are about
  - ▲ 70 masters students
  - ▲ 70+ PhD students
  - ▲ 24 tenured/tenure-track faculty

#### Masters Program

- ❖ Graduate courses in core areas, including:
  - ▲ Architecture, Operating Systems, Algorithms, Compilers, Networking, Multimedia, Databases, Info Security, Software Eng., Machine Learning, Artificial Intelligence, Bioinformatics, Numeric Analysis, Visualization, User Interface, etc.
- Special concentration areas in near future
  - ▲ Computer and Network Security
  - ▲ Software Engineering

#### Masters Program Options

- Three options:
  - ▲ Thesis option
    - Opportunity to participate in research projects, write and defend a thesis
  - ▲ Non-thesis project option
    - Opportunity to participate in research projects
  - ▲ Non-thesis course option
    - Opportunity to take courses on more subjects
- Typically the MS is completed in two years

## Why Earn a Masters Degree?

- ❖ Get a better job with higher pay
- Learn advanced topics from experts
- ❖ Improve CS knowledge and skills
- Prepare for career advances

#### Masters Degree Requirements

- Complete 36 credit hours
  - ▲12 credit hours of required courses
  - ▲18 credit hours of elective courses
  - ▲6 credit hours depending on option
    - Thesis
    - Project
    - Courses
- ❖ Cumulative GPA 3.0 or higher

#### Masters Program Admission

- Cumulative GPA 3.0 or higher in last 60 hours of course work
- ❖ TOEFL score (for international applicants)
- \*Require CS background in subjects such as
  - ▲ Data structure, algorithms analysis
  - ▲ Computer organization, architecture
  - ▲ System programming, operating systems
  - ▲ Math: calculus, linear algebra, probability & statistics, discrete math

#### Apply for Admission to Masters Program

- \* Apply on-line:
  - http://www.utsa.edu/graduate/Admission
- \* Have sent in:
  - ▲ Transcripts
  - ▲ Letters of recommendations
  - ▲ TOEFL scores (GRE not required)
- Domestic applicant deadline:
  - ▲ July 1 for Fall and Nov. 1 for Spring
- International applicant deadline:
  - ▲ April 1 for Fall and Sept. 1 for Spring

Programs

#### Ph.D. Program

- Leading-edge research opportunities:
  - ▲ Bioinformatics
  - ▲ Languages and Compilers
  - ▲ Networking
  - ▲ Software Engineering
  - ▲ Database
  - ▲ High Performance Computing and Scientific Computing
  - ▲ Multimedia
  - ▲ Operating Systems
  - ▲ Visualization
  - ▲ Artificial Intelligence and Machine Learning
  - ▲ Algorithms
  - ▲ Information Assurance, Computer Security, and Cryptographic Protocols

### Why Earn a Ph.D.?

- \* To become an expert in your field
- To participate in the advancement of human knowledge
- \* To increase your durable human capital
  - ▲ It stays on your resume long after your current skills have become obsolete
- \* To establish your credentials as a researcher
  - ▲ Enables you to be principal investigator of government-funded research projects
  - ▲ Enables you to direct research in your company or government organization
- \* To establish your credentials as an educator
  - ▲ Enables you to become a member of the Graduate Faculty of your institution

### Ph.D. Degree Requirements

- Complete 90 credit hours
  - ▲ 30 hours of graduate courses
    - 12 hrs core courses, 18 hrs electives
  - ▲42 hours of research
    - 6 hrs seminar, 18 hrs Doc. Res., 18 hrs Dissertation
  - ▲ 18 hours of flexible electives
- Do research that contributes to the discipline of Computer Science
- Write and defend a dissertation

Programs

Typically takes 5 years after a BS degree

#### Ph.D. Admission Requirements

- ❖ B.A., B.S., or M.S. degree in CS or related area
- Cumulative GPA of 3.30 or higher in the last 60 hours of course work,
- ❖ A total score of at least 1000 on the GRE verbal and math sections and at least 3.0 on the analytical section,
- ❖ A score of at least 550 on TOEFL (213 for the computer version) for int'l students
- Three letters of recommendation

Programe

# How to Apply for Ph. D. Admission

- ❖ Apply on-line:
  - http://www.utsa.edu/graduate/Admission
  - ▲ Provide: Resume, Statement of Research Experience and Interests
- ❖ Have sent in:
  - **▲** Transcripts
  - ▲ Letters of recommendations
  - ▲ GRE & TOEFL scores
- \*Application deadlines: Feb. 1 for Fall, Oct. 1 for Spring admission (domestic or international)

### Financial Support

- Stipend for Ph. D. Students
  - ▲\$21000/year plus paid tuition and fees
  - ▲ May continue subject to acceptable progress
  - ▲ May require teaching
- \*Research & Teaching Assistantship

Drograme

- ▲ Available to qualified masters and Ph.D. students
- ❖ Graduate Research Scholarship is also available to masters students

#### Additional Information

- Web sites:
  - ▲CS Dept: <a href="http://www.cs.utsa.edu">http://www.cs.utsa.edu</a>
  - ▲ Grad Col: http://www.utsa.edu/graduate
- ❖ Email:
  - ▲Office: cs@utsa.edu
  - ▲ Grad. Advisor of Record:

wzhang@cs.utsa.edu

- ❖ Department Office:
  - ▲Room: SB 4.01.28
  - ▲ phone: (210) 458-4436

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