A Message from the Director,

Welcome to the graduate program in Computer Science at Purdue University Fort Wayne. Initiated in 1997, with an emphasis on software engineering, the master’s program has grown to be the largest program in the College of Engineering, Technology and Computer Science at Purdue Fort Wayne. Our program has enhanced and matured in the past 20 years to educate students for a durable computer science foundation and sophisticated applications of the theory in an environment of rapid technical change. Our curriculum reflects current trends in the computing and information discipline, and covers the major traditional areas of computer science: data science, algorithms and theory, software engineering, database systems, computer security and networks, and computer systems. We also provide a 5-year combined B.S./M.S. program in Computer Science by offering a cost-effective educational option to high-achieving students. Our program strives to provide quality programs that prepare our students for life-long success.

Jin So ung Yoo, Ph.D.

Director of Computer Science Graduate Program
Associate Professor
Department of Computer Science
Purdue University Fort Wayne
Develop skills for the future.
The Master of Science in Computer Science prepares graduates to achieve their goals through theory, practical application and research in computing and information. The curriculum centers on a core of courses that cover major areas of computer sciences: software engineering, database systems, computer security and network, and algorithm and theory. Students have the flexibility to acquire in-depth knowledge in specialization areas such as data mining, machine learning, big data management and analytics, IOT (Internet of Things), mobile computing, and embedded systems. Graduates of the program gain skills that meet career needs and adapt to a rapidly changing technological environment.

Graduates of the program are skilled in:

- Designing and planning information and computer software systems with an emphasis on software engineering;
- Establishing requirements for complex systems, including both technological and managerial perspectives;
- Modeling alternatives for complex operations;
- Providing data analytics and visualization;
- Addressing human factors relevant to implementation and use of computer systems; and
- Keeping abreast of technological advancements in various areas such as data science, software engineering, and software systems, and network and information security.

Stand out with a graduate degree that enhances your qualifications through:

- Internationally recognized degree
- Course offerings designed for working professionals
- Practical application of theories and concepts
- Personal attention from dedicated faculty
- Small class size
- Low cost

Learn from Dedicated Expert Faculty
Our faculty have expertise in a wide range of areas. Students benefit from the distinct and renowned assortment of knowledge our professors and instructors have developed throughout their careers.

Faculty research areas include:

- Software Engineering and Project Management
- Computer Network and Wireless
- Embedded System and IOT (Internet of Things)
- Mobile Computing
- Algorithm and Theory
- Databases and Data Warehousing
- Data Visualization and Computer Graphics
- Data Mining, Machine Learning
- Big Data and Cloud Computing
- Information Security and Privacy
- Artificial Intelligence

Featuring: Kanika Binzani, Graduate Research Assistantship

Q. What are you doing in your lab/how are you assisting with research?
A: I'm working with Dr. Jin S. Yoo. Dr. Yoo is an expert in Data Mining and Data Science. She has published many papers in these areas. I am assisting Dr. Yoo on a big data project which involves analysis and prediction.

Q. What is some advice you would give to undergraduates thinking about graduate school?
A: Graduate school is fun if you are ready to work hard, keen to learn new things and have an intent to add breadth & depth in your skill set.
Master of Science in Computer Science
Requirements (30 credit hours)

The course of study requires completion of 30 credit hours with the following components: (1) core requirements; (2) computer science electives; and/or (3) thesis project.

(1) The core requirements are comprised of 6 credit hours that provide computer science core concepts and principles.

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<th>Computer Science Core Requirements (6 credit hours)</th>
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<tr>
<td>ACS 56000 - Software Engineering</td>
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<tr>
<td>ACS 58000 - Algorithm Design Analysis and Implementation</td>
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**One of the following:**

| AC 57400 - Advanced Computer Networks               |
| CS 50300 - Operating Systems                         |

(2) The remaining 24 credit hours are computer science electives.

(3) Students have the option to select either a thesis or non-thesis option to complete the program.

**Elective Courses (not comprehensive)**

| ACS 56700 - Software Project Management             |
| ACS 56200 - System Analysis & Design                |
| ACS 57500 - Database Systems                        |
| ACS 57600 - Distributed Database Systems            |
| ACS 57700 - Knowledge Discovery and Data Mining     |
| ACS 56400 - Human Computer Interaction               |
| ACS 54500 - Crypto & Network Security                |
| ACS 52100 - Topic in Computer Graphics               |
| ACS 58200 - Expert Systems                          |
| ACS 56600 - The Strategic Role of Information Systems|
| CS 51400 - Numerical Analysis                        |
| CS 51200 - Computational Methods in Analysis        |
| CS 54300 – Simulation & Modeling of Computer Systems |

| CS 57200 - Heuristic Problem Solving                |
| CS 59001 - Machine Learning                         |
| CS 59002 - Big Data and Cloud Computing              |
| CS 59003 - Internet of Things                        |
| CS 59004 - Wireless Systems & Mobile Computing       |
| CS 59005 - Embedded Systems                          |
| CS 59006 - Web Services                             |
| CS 59000 - Other topic courses                       |

**Non-thesis Option**

For students who choose to complete the program without a thesis, the remaining 24 credit hour minimum will be chosen from the CS/ACS courses listed in the Graduate Bulletin. A limited number of other graduate courses in mathematics, engineering, and occasionally business and other relevant disciplines may be approved on an individual basis.

**Thesis Option**

For students who choose the thesis option, they will need to complete 6 credit hours in ASC 69800-Research M.S. In addition, the remaining 18 credit hours will be chosen from the CS/ACS courses listed in the Graduate Bulletin. The student would need to find a graduate faculty member to serve as the thesis supervisor. The faculty advisor and student would identify a research/project topic together. The topic should be substantial, spanning through two semesters.

**Transfer Credit**

With the approval of the Director of Graduate Studies, students may transfer up to 9 graduate credit hours of appropriate course work with grades of a B (3.00) or better earned at other accredited institutions. No more than 12 graduate credits completed as a non-degree student will be counted toward the Master degree.

**GPA Requirement for Degree**

To receive the Master degree in Computer Science, students need to maintain at least 3.0 in their cumulative GPA.
Application Deadlines

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<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
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<tr>
<td>U.S. Citizen</td>
<td>30-Jun</td>
<td>15-Nov</td>
<td>No Entry</td>
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<tr>
<td>International</td>
<td>1-Apr</td>
<td>15-Sep</td>
<td>No Entry</td>
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1. **Application:** To begin your application create an account through the portal at [gradapply.purdue.edu/apply](http://gradapply.purdue.edu/apply). Applicants can make and save changes before submitting by logging in with the username and password used to create the account.

2. **Application Fee:** The Graduate School application fee is $60 (U.S. dollars) for domestic applicants and $75 (U.S. dollars) for international applicants. Your application will not be processed until your nonrefundable application fee has been paid.

3. **Transcripts:** Through the application portal, you must upload transcript(s) and/or academic document(s) for every institution of higher education you attended regardless of whether or not a degree was received. If a degree was received then it must be printed on the transcripts. If no degree conferral is printed on the transcripts then a copy of the original diploma (degree certificate) is needed. If the documents are not in English, you must upload an English translation certified by the college or university that issued it.

The uploaded transcript and/or academic document must be from the official version of the document. An official transcript bears the original signature of the registrar and/or the original seal of the issuing institution. An unofficial transcript printed from your current/previous institution(s) student system is not an acceptable document.

4. **Statement of Purpose (Essay):** The statement of purpose should be 300-500 words concerning your purpose for undertaking or continuing graduate study, your reasons for wanting to study at Purdue Fort Wayne, and your research interests, professional plans, and career goals. You also may explain any special circumstances applicable to your background and elaborate on your scholarly publications, awards, achievements, abilities, and/or professional history.

5. **Recommendations:** Submit names of three (3) individuals who are qualified to evaluate your academic or on-the-job performance who can attest to your ability to pursue a graduate degree.

**Official Transcripts**

You must provide official transcripts and/or academic records at the request of the graduate program, or if you are admitted and choose to enroll. An official transcript bears the original signature of the registrar and/or the original seal of the issuing institution. Official documents should be submitted to:

Purdue University Fort Wayne  
Office of Graduate Studies  
2101 E. Coliseum Blvd., KT 140  
Fort Wayne, IN 46805

Transcripts and/or English translations must be mailed directly to the Office of Graduate Admissions from the registrar’s office of the university where the applicant attended. (You can choose to send the transcripts yourself, but the transcripts must be in an envelope sealed by the Registrar).

**International Applicants** must submit Original and Certified copies of all secondary and post-secondary (college/university) academic records and degree certificates. **ALL documents** must be submitted in both English and in the Original language. WES or ECE must evaluate all foreign transcripts on a course-by-course and degree basis. Official evaluation report is required.

All Candidates must hold a four-year undergraduate degree or equivalent in any discipline from a recognized institution.
6. All international applicants must also submit the following items to be considered for admission:

1) English
   - TOEFL for Non-Native English Speakers:
     Minimum Paper-Based Test (PBT) Score: 550
     Minimum Internet-Based Test (IBT) Overall Score: 77

     With the following minimum section requirements:
     Reading: 19  Speaking: 18
     Listening: 14  Writing: 18

   - IELTS (Academic Module):
     An alternative to the TOEFL, scores of 6.5 or higher

   - Pearson Test of English (PTE) (Academic Module):
     An alternative to the TOEFL, scores of 58 or higher

   - ELS - Certificate Level 112

   Applicants who have completed a minimum of 48 semester credit hours at an accredited college or university in the United States are not required to submit an English proficiency exam score.

2) Transcript Evaluation: Please submit a course-by-course transcript evaluation report of any secondary, postsecondary (college/university) academic records, and degree certificates from outside of the United States.

3) Proof of financial support (An official letter and financial statement from a bank, company, or government sponsor indicating the availability of sufficient funds to pay for your tuition and living expenses is required.)

4) Visa and/or Permanent Resident Card (PRC).
Q. Do I need a bachelor’s degree in computer science to apply to your program?
A. You do need to have an accredited bachelor’s degree to apply to the program, but it does not have to be in computer science. Prospective applicants should have a strong undergraduate degree in computer science, engineering, business, or mathematics, though applicants with another undergraduate degree and significant practical experience in the computer field may be accepted. Students applying to the program should have proficiency in a high-level computer language equivalent to a two-semester university course, a course in data structures, a course in statistics or probability based on two semesters of calculus, and a course in finite or discrete mathematics.

Q. How many credit hours is the program?
A. The program is 30 credit hours, including 6 core credit hours, and up to 24 credit hours in computer science electives.

Q. Does the program have concentrations?
A. The general concentration area is Applied Computer Science, however, students can specialize in an specific area with concentrating relevant computer science elective courses. For example, for data science specialization, students can choose courses such as data mining, machine learning, database systems, and Big Data and cloud computing.

Q. How do I apply to the program?
A. You will need to submit the following items to be considered for the program:
- An online application
- $60 application fee
- Statement of Purpose
- Three letters of recommendation
- Official transcripts from all colleges/universities you’ve attended
- English score, e.g., TOEFL, IELTS, PTE, and ELS, (for international students)
- GRE score (Check the GRE waive condition with the program director)

Q. Is there an international student services representative who can answer additional questions for international students?
A. Yes, international students applying to the Master of Computer Science program will also work with the Office of International Education.

Q. How long does it take to complete the program?
A. Normally, the program can be completed in 2 years or less with full-time status.

Q. When do classes meet?
A. A class meet one night during the week from 6:00-8:45pm. Some courses may be offered during the day time or over the summer.

Q. How are admission decisions made?
A. After all admission materials are submitted, a group of graduate faculty members will review the application materials and make an admission decision. It is important to start the process as early as possible.

Q. How much does the program cost?
A. You can find tuition information at pfw.edu/financial.

Q. What type of financial aid is available?
A. There are a variety of financial aid options available to students including Stafford Loans. You can find information about these financial aid options at pfw.edu/financial-aid. A limited number of Graduate Teaching Assistantships and Graduate Research Assistantships are also available.

Q. When are the application deadlines?
A. Domestic Students:
- Fall Semester: June 30
- Spring Semester: November 15

International Students:
- Fall Semester: April 1
- Spring Semester: September 15