Welcome

A modern computer scientist or information technology expert must be able to keep abreast of the latest technologies and use critical thinking skills to solve problems involving automation of workflow processes, integration of multiple technologies and mining of large data sets. Security and privacy skills are vital as software becomes more pervasive in today’s society, and is found in more and more embedded devices.

The Central Michigan University Department of Computer Science offers a Master of Science degree program in Computer Science. This program offers options to learn a more traditional program, focusing on algorithm development and software engineering. It also offers a program which focuses on information security and privacy, cloud computing and big data. Graduate students in Computer Science at CMU have opportunities to learn and perform research in such areas as network security and visualization, mobile computing, artificial intelligence, data mining and natural language processing, and scientific computing. Graduating students typically either pursue a PhD at another university or obtain employment as a software engineer or data analyst.

Students learn concepts and tools relevant to their area of interest, and also learn critical thinking skills to be able to stay up-to-date in their skills and knowledge in the rapidly growing fields of information technology and computer science.

Research Facilities

CMU offers computer science graduate students research and learning facilities. Classrooms and laboratories are housed on the fourth floor in CMU’s Pearce Hall.

The facility contains computer labs dedicated to software development, databases, data mining, multimedia application development, networking, and embedded systems programming. There is also a small Hadoop cluster as well.

Degree Requirements

A minimum of 30 semester hours must be completed for the CPS Master’s degree program. All students must take a database and a data engineering course. Students may then pursue a more traditional CPS track focused on software engineering and algorithm development, or a more practical ITC track, focusing on information security, cloud computing and big data. Students wishing to pursue a PhD elsewhere are strongly encouraged to do a Masters level thesis; we also have a project based option. To graduate with a Master’s degree in Computer Science, students must maintain a cumulative GPA of 3.0 or higher.

Financial Assistance

Financial assistance for computer science graduate students is available through fellowships and teaching and research assistantships. Graduate teaching assistantships involve full-time graduate study, require teaching activities, and include a cash stipend and remission of 20 credits of tuition per year. Graduate research assistantships are supported by individual faculty with varying levels of support. Applications for graduate teaching and research assistantships are due by March 1.

Admission Process

Applications for entrance in the fall semester should apply by March 1 and spring semester should apply by October 1. Applications must have a 3.0 GPA (in the last two years of study) and have taken the entrance exam: GRE. See the College of Graduate Studies Web site at www.grad.cmich.edu for fees and other information. You may apply online by visiting http://apply.cmich.edu.
Faculty

Jesse Eickholt, Ph.D.  University of Missouri.  Predicting Protein Residue-Residue Contacts and Disorder (2013) Interests: Machine Learning and Informatics.  eickholt.j@cmich.edu

Lisa Gandy, Ph.D.  Northwestern University, Evanston, Illinois.  Research in the areas of natural language processing and text informatics.  Currently helping biologists annotate research results automatically, and also investigating how the content of legislation in the US Senate affects legislator’s voting behavior.  gandy1l@cmich.edu

Gongzhu Hu, Ph.D.  Michigan State University, East Lansing, Michigan.  Multivariate regression modeling for home value estimates with evaluation using maximum information coefficient (Aug 2013).  Interests: Data Mining, Distributed Systems and Software Modeling.  hu1g@cmich.edu

Pat Kinnicutt, Ph.D.  Massachusetts Institute of Technology, Cambridge, Massachusetts.  The relationship between thermal Imaging and waist circumference in young adults (2012).  Interests: Scientific Computing / Visualization, Spatial Statistics and Informatics.  kinni1p@cmich.edu

Qi Liao, Ph.D.  University of Notre Dame, Notre Dame, Indiana.  Smarter Network Management through Visual Anomaly Analysis for Dynamic Graphs Visual analysis of large-scale network anomalies.  lia1qi@cmich.edu

Roger Lee, Ph.D.  Wayne State University, Detroit, Michigan.  Online on-demand advertising techniques (March 2013).  Interests: Global Advertising Techniques.  lee1ry@cmich.edu

Tony Morelli, Ph.D.  University of Nevada, Reno.  Ouya: The Launch of a New Video Game Paradigm (2014).  Interests: Gaming and Accessibility.  tony.morelli@cmich.edu

Jay Murthy, Ph.D.  University of Illinois, Champaign, Illinois.  Implementation of Donald elliptic projection for VH coordinates and calculation of air mileage (May 2010).  Document classification efficiency of phrase-based techniques (May 2009).  Interests: Multimedia, Data Mining and Computer Vision.  murph1sn@cmich.edu

Ishwar Rattan, Ph.D.  Indian Institute of Technology, Delphi, India.  Interests: Concurrent Programming.  ratta1i@cmich.edu


Michael Stinson, Ph.D.  Louisiana State University, Baton Rouge, Louisiana.  Interests: Sensor Networks, Computer Science Education.  stins1m@cmich.edu

Ahmet Ugur, Ph.D.  Wayne State University, Detroit, Michigan.  Physiological Disturbances Associated with Neonatal Intraventricular Hemorrhage Bitmap Join Indexes Optimization.  Interests: Biocomputing, Bioinformatics and Databases.  egur1a@cmich.edu

Apply Online
http://apply.cmich.edu

For More Information
Requests for applications and additional information about the computer science program should be addressed to:

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CMU is an AA/EO institution, providing equal opportunity to all persons, including minorities, females, veterans and individuals with disabilities.  See www.cmich.edu/aaeo.