



Department of Computer and Information Sciences
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COMPUTER AND INFORMATION SCIENCES NEWS

Vol. 6 Newsletter for the Department of Computer and Information Sciences at SUNY Fredonia January 2013

Message from the Chair



Welcome to the Department of Computer and Information Sciences! We are a community of faculty and students who are excited about our dynamic discipline and how it changes people's lives. The department offers a program in computer science and one in computer information

systems, each with a number of concentrations. Thus, it prepares the students for a wide range of careers or graduate studies. Our classes are small – at most 30 students – and the education is student-centered. We provide individualized advisement to all our undergraduates about the programs, course scheduling, and career opportunities.

The Department works in close collaboration with the Technology Incubator and provides many internship opportunities. We offer innovative courses on Game Development, Android, Ruby on Rails,

iPhone, Windows 7 Phone, Alice, Introduction to Multimedia, and Computer Security and Ethics.

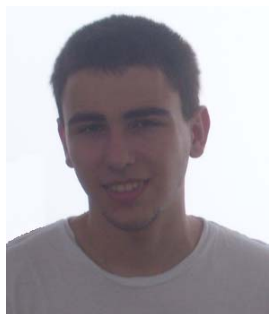
Our faculty includes accomplished scholars and teachers offering a variety of courses. Department members are recipients of numerous awards such as the Wilkes Award of the British Computer Society, SUNY Fredonia President's Award of Excellence, SUNY Chancellor's Award of Excellence in Scholarship, Kasling Memorial Lecture Award, and Hagan Young Scholar Award. We love to involve the students in our research activities – an opportunity that is offered primarily to graduate students at other universities and research centers.

We are proud of our alumni, who are employed nationwide as computer consultants, programmers, systems analysts, network administrators, project managers, software engineers, hardware specialists, web developers, and educators. Together, we are working to improve the welfare of our campus and the community.

Reneta P. Barneva
Professor and Chair

New Faculty

The department welcomed the following faculty:



Prof. Boris Brimkov joined the department in Fall'12. He is a Fredonia resident and was the Fredonia High School valedictorian in 2009. He graduated from the University at Buffalo in only three years and is preparing to pursue doctoral studies. In Fall'12, Mr.

Brimkov taught the course Web Programming I, and will now be teaching Web Programming I and Discrete Mathematics. Student comments from his class include: "Boris was excellent. I really enjoyed learning from him and he is extremely knowledgeable. Also, he is a very fair grader and wants his students to succeed. I would recommend him to any individual interested in web programming and computer science."



Prof. Jonathan Nalewajek is a SUNY Fredonia alumnus that graduated in the class of 2010 with a B.S. in Computer Science and a minor in Philosophy. After graduating, Prof. Nalewajek went on to work in the Advanced Technology and Incubation Lab at Xerox, where he developed mobile

applications for the Android, iOS, and WP7 platforms. He now works as the Senior Mobile Developer at Cypress North, and is the co-founder of Academy Geeks, Inc. which provides smartphone applications for teachers and professors.

Prof. Nalewajek will be teaching the course Mobile Applications Development.

Prof. Elysebeth Simmang is a SUNY Fredonia alumna who returned to teach in the department in



Spring'13. She is from a small town in Cattaraugus county and came to SUNY Fredonia as an undergraduate in 2005.

After changing her major from Social Work to Computer and

Information Science in 2006, she completed her degree and took part in other activities on campus. While at SUNY Fredonia, she was a computer lab proctor, teaching assistant for the Computer Science department, member of the on-campus volunteer group S.T.A.R.S and a House Manager for the Rockefeller Arts Center.

After graduating in May of 2010, Ms. Simmang obtained a job within the industry, working at ATTO Technologies, Inc. in Amherst, NY as an engineering test technician. There, she tested high-end RAID and storage solutions. Recently, she has changed jobs and is now working as a data center technician at the Lockport location for Yahoo!.

Ms. Simmang is also attending the University at Buffalo in an effort to obtain her Master's in Library and Information Science. She is expected to graduate in 2014.

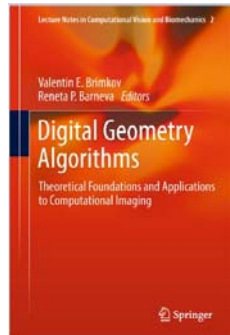
Ms. Simmang will be teaching one of the most popular courses in the department – Information Systems Structures.

Scholarly Activities

Dr. Singh was invited to be a plenary speaker at the International Conference on Perspectives of Computer Confluence with Sciences (ICPCCS-2012) held Dec. 10-12, 2012 at Nowrosjee Wadia College, affiliated with Pune University, India. This is a big honor as only internationally recognized scholars are invited as plenary speakers. His travel and local expenses are supported by the ICPCCS-12 Organizing Committee and partly by SUNY Fredonia. During his stay in India, he is also invited to

give a talk in the Popular Lecture Series of Science Faculty - Banaras Hindu University, Varanasi, India.

Dr. Barneva published two books with Springer. The first one, called "Digital Geometry Algorithms; Theoretical Foundations and Applications to Computational Imaging" (in co-authorship with V.E. Brimkov) contains open problems for research projects, provides compact surveys on specific topics, and is meant to be used by both researchers and practitioners. The second one, "Combinatorial Image Analysis", in co-authorship with V. Brimkov and J.K. Aggarwal, contains articles presented at the 15th International Workshop on Combinatorial Image Analysis, on which Dr. Barneva served as Program and Publication Chair, and Chair of the Organizing Committee. It covers topics such as digital geometry, combinatorics in digital spaces, digital curves and surfaces; digital topology, grammars, transformation, applications; grammars and models in image analysis; picture transformations, morphologic operations, image segmentation; and discrete tomography and its applications.



Dr. Singh had the article Singh, G. "Computer Simulations of Quantum Theory of Hydrogen Atom For Natural Science Education Students in a Virtual Lab" published in the Journal of Educational Technology Systems. Together with **Dr. Siddiqui**, he presented and published the paper "Computer Simulations of Genetics Laws" (co-authored by M. Singh and S. Singh) at the International Conference on Perspectives of Computer Confluence with Sciences (ICPCCS-12) held at Wadia College, Pune, India, Dec. 10-12, 2012.

The same authors had the work "Modern Higher Education Techniques Crossing National Boundaries," presented at the 2nd Annual

Technologies in Education Conference held at Saint Rose College, Albany, NY, May 17-18, 2012. **Dr. Singh** had two other presentations at the same conference – "Blended Teaching and Learning Techniques Employed in Science Education" and "Useful Tools and Techniques to Enhance Student Retention in Higher Education."

Dr. Zubairi and Prof. Olson have the paper "Client-Server Based Transmission Scheme over GSM Network for MEDTOC with Patient Classification" accepted at the 2012 International Conference on Collaborative Technologies and Systems. The conference is being held in cooperation with ACM and IEEE.

Dr. Junaid Zubairi presented his innovative flight tracker system in TechstormNY on April 18th 2012 in SUNY Binghamton. The flight tracker is protected under a provisional patent filed by the SUNY Technology Transfer Office. Dr. Zubairi's project was the only one from Fredonia's campus among 10 research projects from undergraduate SUNY campuses. Techstorm was organized by the SUNY Research Foundation in the new Engineering and Sciences building at SUNY Binghamton and cosponsored by the University of Albany, University of Buffalo, Upstate Medical University, the Research Foundation of SUNY, and Binghamton University.

In October 2012, **Prof. Kanev**, visiting from York University, gave a presentation entitled "Image Based Interactions in Augmented Environments." It was attended by faculty and students and followed by an informal conversation.



Dr. Howard Blair from Syracuse University visited the department and gave an interesting talk entitled "Wanted: Srodinger Cat - Dead and Alive" on quantum computing. The lecture was attended by faculty and students of the Computer and Information Sciences Department and the Physics Department. The audience learned about the amazing

world of quantum mechanics and how our "curiosity can kill a cat" - before we look in the box, it is both dead and alive. It observed the double slit experiment in which the light particles behave as waves. Finally, students had the opportunity to learn more about the graduate experience.



On May 1, 2012, **Dr. Barneva, Prof. Kelley**, and the student **Nathaniel Darling** presented at the WNY Chancellor Showcase in Buffalo State College.



Pictured is Prof. Kelly, presenting to the President of the University at Buffalo Dr. Satish Tripathi and the VPAA Dr. Ginny Horvath the student project on augmented reality. The software recognizes the given code and superimposes 3D objects.



Drs. Gurmukh Singh and Khalid Siddiqui made a presentation entitled "Digital Technologies and Techniques Used in Higher Education to Cross National Boundaries" at the 6th Teaching and Learning Conference of SUNY Fredonia held on August 20, 2012. Many department faculty attended the conference.

On April 16, 2012, the Department of Computer and Information Sciences had its second Best Teaching Practices Workshop. **Dr. Singh** gave a talk "Interactive Applications of Microsoft Excel 2010", **Dr. Barneva** gave an advising workshop, and the group exchanged ideas about better teaching of the course CSIT 121 Introduction to Computer Science I.

On April 13, 2012 **Dr. Barneva** gave a talk entitled "Emerging Discipline: Social Informatics" at the Sigma Xi seminar.

An article about the achievements of Dr. Singh, entitled "Professor involved in scholarly and teaching work" was published in the Dunkirk Observer and in Campus Report.

Publications with Students

Dr. Ziya Arnavut worked with two undergraduate students majoring in both Computer Science and Computer Information Systems and pursuing a dual diploma program with Ege University, Turkey. With **Arda Gumusalan**, he presented the work “Lossless EEG Signal Compression” at the 34th IEEE Annual International Conference of the Engineering in Medicine and Biology Society (EMBC'12). The conference was held in San Diego, California, USA on August 28 - September 1, 2012. With **Basar Koc**, he published the article “A Modified Pseudo-distance Technique for Lossless Compression on Color-Mapped Images,” in the proceedings of IEEE Data Compression Conference, held April 10-12, 2012.

Dr. Reneta Barneva mentored the Honors Thesis of Georgie Fu – a double major in Computer Science and Public Relations. An article summarizing her thesis was published in the Proceedings of the Seventh International Multi-Conference on Computing in the Global Information Technology, ICCGI 2012, held in Venice, Italy. The paper is entitled "Environmental Codes for Position Determination of Autonomous Agents."

Curriculum Updates

Game Development

The course Game Development offered by **Prof. Kelley** was featured in the article "Fredonia prof gives dimension to QR code" of the newspaper Buffalo Business First of June 22-28, 2012.

It reads: “[Prof. Kelley] asked students how to make newspaper reading more interesting. That discussion resulted in his QR product, which he said he developed outside the classroom.

Called augmented reality and used worldwide, it allows people to scan a quick response (QR) code

with a smartphone. But instead of a URL, the QR presents a 3-D image.



To illustrate, he aimed his Android phone at a QR code. A small, white pickup truck appeared as if it was parked on top of the paper.

But that’s not all. As the phone is rotated around the truck, the sides, front and back of the truck appear, as if one is circling it in a parking lot.”

From <http://www.bizjournals.com/buffalo/print-edition/2012/06/22/fredonia-prof-gives-dimension-to-qr.html>

Ruby on Rails

The university newspaper Leader published a paper about the course Ruby on Rails. **Prof. Kricheldorf** and the students **Patrick Hodge** and **Greg Rowley** talked about the ambitious course project to create a better version of the existing FSU4U website. The paper reads: “Professor Gregory Kricheldorf is turning instruction into potential real life experience. His CSIT 291 class will be completely reconstructing a mock-up of the FSU4U website, and present the finished product as a possible alternative to the current model. On a campus where it is mandatory for every Student Association (SA) group to sign up for and use the site, ease of use and utility are of high importance.

The main goal behind their initiative is to fix FSU4U’s current functionality issues, ultimately making it easier for users to navigate. According to Kricheldorf, current problems include dropped availability and “dead end” issues when a user cannot navigate elsewhere on the site, and are commonly due to mediocre hosting or poor development.”

From <http://fredonialeader.wordpress.com/2012/03/27/student-coding-vigilantes-to-re-work-fsu4u-site/>

Student Activities

The double major in Computer Science and Public Relations **Ms. Zhoujun "Georgie" Fu** made headlines for her accomplishments in the university newspaper "Leader" (April 16, 2012).



Ms. Zhuojun Fu from Shanghai, China, graduated summa cum laude in May with double majors in Communication-Public Relations and Computer Science-Applied Math, and minors in Applied Math and Leadership Studies. Some of her many campus activities include:

- The first international recipient of 2012 Lanford Presidential Prize from the Oscar and Esther Lanford Endowment of the Fredonia College Foundation. The award—generously created and endowed by the late President Emeritus Oscar E. Lanford and Mrs. Lanford—recognizes a member of the graduating class who has exhibited balanced achievement and exemplifies Fredonia's ideals.
- Chancellor's Award for Student Excellence, which honors State University of New York

students who have best demonstrated and been recognized for their integration of academic excellence with other aspects of their lives.

- President, Golden Key International Honour Society
- President, Chinese Club
- President, American Red Cross Fredonia Chapter
- Intern, Public Relations Office
- Intern, Sports Information
- Intern, Campus Host Program
- International Student Ambassador for the International Education Center
- Tutor, Learning Center
- Volunteer, Campus and Community Children's Center
- Student Coordinator, LuWan Exchange Program for College of Education

Miss Fu received numerous honors and awards including L. Michael Dimitri Scholarship, Golden Key International Honour Society Scholarship, Feng Chiang Scholarship, Fiat Lux Scholarship, President's International Scholar Award, Public Relations Society of America Buffalo Niagara Chapter May C. Randazzo Scholarship, SUNY Fredonia President International Scholar Award, SUNY Fredonia Scholar Award, Golden Key Regional Student Leader of the Year, Educational Development Program's Tutor of the Year, and Golden Key International Student Leader of the Year.

After graduation, Miss Fu plans to pursue a master's degree in International Affairs with a merit fellowship at the Elliott School of International Affairs, George Washington University.



President Hefner congratulates Georgie.

The student **Jeremy Topolski**, a double major in Computer Science and Mathematics, was named as February's "**Student of the Month.**" Mr. Topolski is an excellent computer scientist, an active member of the Resident Assistants Advisory Board, a Computer Science tutor and proctor, frequent participant in math competitions and Buffalo News Kids Day, and volunteer at St. Vincent's Home for the elderly.

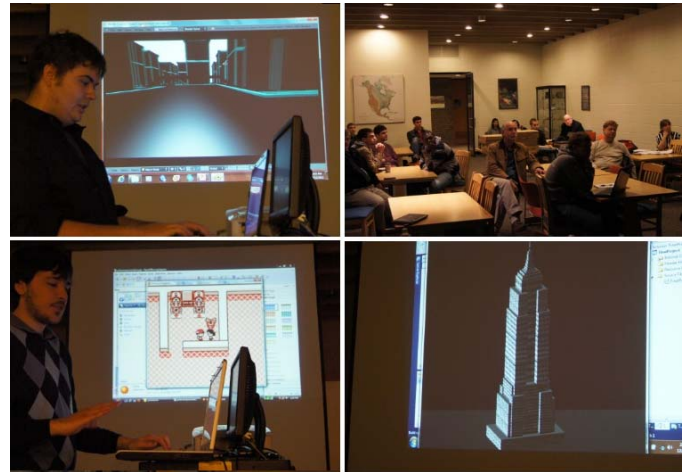
More about his accomplishments can be read in the Campus Report article at

http://ww2.fredonia.edu/news/BrowseallNews/tabid/1101/ctl/ArticleView/mid/1878/articleId/3798/language/en-US/Jeremy_Topolski_named_February_Student_of_the_Month.aspx

The following students received scholarships at the department Awards Ceremony:

- **David Ballard, Nicole Faulise, John Malayny, Rachael Reinis, and Jeremy Topolski** – Maytum Scholarship
- **Aaron Chan** – Beck Scholarship
- **Erdinc Masat** – Chiang Scholarship

The **Third Department Student Expo** organized by **Prof. Robert Olson** was held on December 12, 2012. **Dean Kijinski** sponsored the event. The Expo lasted over five hours and featured the following presentations.



- "Defeating Classroom Bullying Through The Use of Data Mining and Social Graph Analysis" by Robert Szkutak,
- "Creating an RPG using Alice" by Members of CSIT 101 and Professor Michael Kelley,
- "Game Development" by Members of CSIT 208 and Professor Michael Kelley,
- "K-means Clustering Visualization" by Robert Szkutak,
- "Career Opportunities in Computer and Information Sciences" by Efe Alacamli and Erdinc Masat,
- "Architect's Dream Software" by Jeremy Topolski,
- "Big Head, Little Arms" by Ankit Ahuja and Villasone Phengsomphone,
- "Adventures in Creating an "Old School" Video Game" by John Malayny,
- "OpenGL Building" by Justin Soderberg,
- "Matrix-based Bully Analysis" by Nicholas Freville,
- "Digital System" by John Malayny,
- "Bit Shifter" by Justin Soderberg,
- "Random Game Environment Generation and Cyclic Maps" by Nicholas Freville.

The Expo was very well-attended. The participants enjoyed the student presentations and many informal discussions. At noon, **Mr. Fritzinger, Director of**

the **Technology Incubator**, gave a talk about the technological development of the region and the value of the internships in student career.

The students in the Game Development course **James Fefes, Sean Wignall, Brandon Artymowycz, Cory Campbell, Tyler Vail, Nathaniel Darling, Mark Mackey, Dylan Penner** tied for **first place** at the **American Play Ethics Symposium** for their project "SUNY Raptor, An Augmented Reality Game". The committee chair wrote "We thought it was very promising--well put together, thought through very thoroughly and thoughtfully presented." The students received a monetary prize and gave a 20-minute talk on March 23, 2012. More about their work can be seen at <http://www.youtube.com/watch?v=aVRaOGV9A2s>.

University Student Expo. The students **Mark Mackey, James Fefes, Sean Wignall, Brandon Artymowycz, Melih Celik, Baris Yildirim, Seyma Nur Ozdemi, Basar Koc, Cem Sancak, Daniel Lips, Rob Szkutak, Zhuojun Fu** presented at the 14th Student Research and Creativity Exposition on April 26th, 2012. A video clip featuring some of their presentations can be seen at <http://www.fredonia.edu/oscar/>.

The department regularly holds a **Student-Faculty Party** at the beginning of the Academic Year. This year it was held on September 14, 2012 and was attended by more than 50 students. It gives an opportunity for the students to mingle with the faculty and chat informally. **Drs. Arnavut, Barneva, Nazarenko, Siddiqui, and Singh; Profs. Brimkov, Cole, Decker, Olson, and Szocki** took part in it. They talked to the students and presented their work. Special guests were **Dean Kijinski** and **Associate Dean Byrne**. They talked about the role of sciences in today's education and about the benefits of ABET accreditation for which the department is planning to apply. The President of the CS Club, **Rob Szkutak**, talked about the club activities.



Two of the department seniors were featured in a Campus Report article about their achievements. From the article: "Two seniors who are international students from Turkey, **Arda Gumusalan and Basar Koc**, were recently accepted into doctoral programs in Computer Science at George Mason University, D.C. and University of Miami, Coral Gables, Florida, respectively. Both have been offered \$60,000 fellowships for tuition and living costs. Gumusalan and Koc will graduate in May with dual degrees from SUNY Fredonia and Ege University, Turkey.

During his three years at SUNY Fredonia, Koc has achieved several scholarly distinctions. Since 2011, he has co-authored four conference papers with Dr. Ziya Arnavut, a professor at the Computer and Information Science Department. Recently, Koc published "A Modified Pseudo-distance Technique for Lossless Compression on Color-Mapped Images" at the IEEE Data Compression Conference in April. His previous work, titled "Block-sorting Transformations with Pseudo-distance Technique for Lossless Compression of Color-mapped Images", was presented at the 6th IEEE International Conference on System of systems Engineering (SOSE) in Albuquerque, New Mexico in June 2011. This paper was also awarded the "Best Paper Award" at the WNY Image Processing Workshop at the University of Rochester in November 2011.

Under the supervision of Dr. Arnavut, Gumusalan recently finished and submitted for publication his undergraduate thesis, titled “EEG Signal compression” to the 34th IEEE International Conference on Engineering in Medicine and Biology. He is expected to be presenting the paper at the event in Orlando, Florida, in August.

Both students attended SUNY Fredonia through the Dual Diploma agreement with Ege University in Turkey, which involves students majoring in either computer science or international relations. The programs allow students to experience two distinctively different cultures, which prepares them well for work in a multicultural environment and to function effectively in an international arena.”

From:

http://ww2.fredonia.edu/news/BrowseallNews/tabid/1101/ctl/ArticleView/mid/1878/articleId/3856/language/en-US/Gumusalan_and_Koc_win_doctoral_fellowships_in_computer_science.aspx

High school students from Brocton HS, Lake Shore BOCES, Gowanda HS, and Fredonia HS attended the **High School Contests** held in May 2012. They participated in the Programming, Spreadsheet, HTML Contests, Scavenger Hunt, and Quiz Show. Dean Kijinski provided food and refreshments.



Professor Olson Named DMUR Fellow

In May 2012, SUNY Provost Lavallee announced the new Innovative Instruction Technology Grants program (IITG). “The IITG program seeks to promote understanding of how new technologies increasingly proliferated through consumer-driven and education markets, can provide fresh opportunities for faculty and staff in service to pedagogy. Social media sites, Internet search engines, mobile devices, e-books, video-capture and learning management systems are transforming how education is delivered and how we collaborate within these environments.” – Lavallee said.

One of the first tier grants funded with \$60,000 is *Distance Mentored Undergraduate Research (DMUR)*. According to its web site: “Distance mentored undergraduate research opens up a wide range of faculty expertise to exceptional students seeking to conduct an undergraduate research project on a specific topic that may not be covered by the faculty at your home campus. [...] The faculty member with the right research background may very well be teaching at another participating SUNY institution. Using the computer, DMUR allows you to work under the supervision of that faculty member even though he or she is located on another campus.”

Prof. Olson was one of only eight faculty from participating campuses approved to mentor students in the program. The mentors are designated SUNY DMUR Fellows and receive funding for their research expenses and equipment for distance learning communications. Prof. Olson will work with a student from Oswego who will join his team of four undergraduate SUNY Fredonia students working on the project Classroom Assisting Social Systems Intelligence (C.A.S.S.I.).

“The Project C.A.S.S.I. is aimed at developing software that can be used to mine data from the reports filed when students get into trouble at school.” – said Olson. “This data is then consolidated into a single social graph which can then be used to support educational processes. The over-all goal of

Project C.A.S.S.I is to provide a comprehensive open-source decision support system capable of supporting teachers, administrators, and school counselors.”

“Thus far, the project team has explored using the data to find optimal seating charts although this is by no means the only application of the data mined from the behavioral reports. In addition to developing optimal seating charts, some potential applications of the social-graph created by the data mining are tracking potentially dysfunctional student relationships over time, red-flagging students who may need the attention of counselors, and providing optimal behavior-informed student classroom assignments. We do not intend to override the autonomy of educators – rather, we hope to provide them with information sharing and analysis tools to make their jobs easier.”

“This spring, the students will work on developing a web-portal for the system, improving the efficiency of the system’s analytical algorithms, integrating social sensitivity metrics, and clustering student relationships. However, these projects are just the tip of the iceberg for C.A.S.S.I.” – concluded Prof. Olson.

Mobile Programming

As more and more people begin to use smartphones, tablets, and other devices, the demand for mobile applications has greatly increased. According to a Pew Internet & American Life Project study published at the beginning of last year (<http://pewinternet.org/Reports/2012/Smartphone-Update-2012/Findings.aspx>), as of March 2012, 46% of American adults are smartphone users. This was an 11% increase from 2011, and this study only focused on smartphones. It did not include tablets or other handheld devices.

Industry leaders have noticed this trend, and the demand for mobile developers has been on the rise. According to a survey by Dice (<http://media.dice.com/report/july-2012-top-tech-talent-gaps/>), “mobile developer” was ranked the second most difficult position to fill by hiring managers. Dice noted, “In some cases such as mobile

developers, the market is expanding faster than the talent pool can adapt.”

When I was asked to teach a mobile application development course at Fredonia, I was beyond excited. This course is going to be a great way to introduce students to a relatively new area of computer science, and will teach them skills that are urgently needed in the industry. I love working in this field, and I am really excited to share my passion with students.

Jon Nalewajek
Instructor

Computer Science Club

The Computer Science Club activities were revived during the Fall 2012 semester. Operated by students **Robert Szkutak, David Ballard, Justin Soderberg, and Kyle Smolinski**, the club attracted around thirty students to participate in it. The President of the CS Club, **Rob Szkutak** explained: “It is intended to motivate students to explore computer science outside of the classroom. Through lectures from guests such as Dr. Kamen Kanev and Ryan Wolf as well as group meetings and e-mail, the Computer Science Club succeeded in encouraging students to step outside of their comfort zones and tackle ambitious extra-curricular projects. By the end of the semester, students had created a wide variety of software including video games, web sites, implementations of mathematical algorithms, cell phone apps, and more. Many exciting new projects and events are currently planned for the Spring 2013 semester.”

The CS Club met for the first time on October 1, 2012. **David Ballard** and **Rachael Reinis** made a presentation about the internships they participated in over the summer. It was very well received. More than thirty students showed up, including several outside of the department. The President of the CS Club said: “As a whole, the group seemed very pleased with all of the opportunities offered through SUNY Fredonia, the CS Department, and the Technology

Incubator. Nearly every student who came, appeared to be actively engaged in talking with other students, asking questions to the group as a whole, and having a good time. I am anticipating a high turnout for our next meetings."



Life after the B.S.: Graduate Studies and Beyond

After graduating from the program of Computer and Information Sciences, I had the whole world in front of me. I was prepared for anything the job market could throw at me. I was lucky, found a job a few months after graduation. This job taught me many things, as well as used many of the skills I had acquired while pursuing my degree. The most important thing it showed me, however, is where my passion lay, and that was in information, the organizing of it to be specific.

The search for information organization jobs began. Job after job listing suggested the same degree, MLIS. That's a Master's in Library and Information Science. How in the world would those two things merge together? Graduate studies would explain this in detail.

Seeing as I needed a Master's degree to pursue my career goals, I began the search for grad school. I used traditional search methods (searches in online search engines) and asking others I knew who might know someone in the field. Turns out that University

of Buffalo, right here in my backyard, had an excellent program. I applied, holding my degree in Computer and Information Science, keeping my fingers crossed.

I was accepted, and readily so. This is a field that not only deals with books, but all types of information. The same type of information that you are studying for your B.S. or B.A.. The merging of these two fields is becoming more and more important as things are moving into the digital realm. Many libraries want to update to the new age of computing, but the staff doesn't have the know-how, and the users don't have the teachers. My degree in the computer industry made me a fantastic candidate.

They call us "spanners" in the library world, people who have the ability to talk to "techs" and "suits". That's engineers and business professionals respectively. The skills I learned in undergrad prepared me for this role. Knowledge of computers and information systems allow me to communicate with engineers effectively, while the business and ethics skills acquired allow the conveying of information to those not so tech savvy.

It is in this way that the CIS degree can be used to merge fields. If a field can be named, there is more than likely a way that the CIS skills that were learned can be applied, especially due to these "spanning" abilities. More importantly, it is becoming increasingly demanded in the workplace, and those with higher competency on the tech side of things are finding they are having an easier time in the workplace.

Grad School isn't cheap, but there are options. For example, I work full time and take classes at night (most graduate programs offer night classes as well as online courses; they understand that students have jobs as well). There are also graduate Stafford and private loans available, just like for undergraduate degrees.

The coursework is tough, about one credit of graduate work equates to three credits of undergraduate work. So keep that in mind when you are choosing classes, especially if you work full time as well. Putting your all into graduate studies is

important, you are doing this to further your career and your life, so why not do your best?

Ultimately it comes down to the decision of where you want your life to go. CIS can be applied to almost any industry. A little digging and research and you might just find that graduate studies are for you, and will put you where you want to be in life. Keep it all balanced and your eye on the goal. The CIS degree is what you make it, take it and run.

**Elysebeth Simmang
Alumna**

Awards

Since 2010, the department annually confers "Teacher of the Year" awards based on student course and instructor evaluations. In September, at the department party open



to all students taking computer and information sciences, **Prof. Cole** received "Teacher of the Year" award for AY 2011-12 for a second year in a row.

Professor Gregory Cole joined SUNY Fredonia as an adjunct instructor in August 2007. Mr. Cole served as a computer programmer in the United States Army Security Agency. After receiving an Honorable Discharge, Mr. Cole worked in industry while attending Jamestown Community College and Alfred University. Mr. Cole graduated in 1984 from the Alfred University School of Business with a B.S. in Business Administration.

In August of 1984 he began teaching Data Processing for Chautauqua County BOCES in Fredonia. Mr. Cole attended Graduate School at Buffalo State College and earned his Master of Business Education

degree in 1990. Continuing his education, he completed the School Leadership program at Fredonia State College and is a certified School District Administrator.

Mr. Cole is a National Board Certified Teacher and is currently the instructor of the Computer Industry Professional Certifications course at E2CC BOCES in Angola. Mr. Cole has earned many IT industry recognized certifications including Microsoft Office Master, CompTIA A+ and CompTIA Network+ Certifications.

Professor Cole is teaching 2 sections of CS 120 – Overview of Computer Science.

SUNY FREDONIA COMPUTER AND INFORMATION SCIENCES NEWS

Computer and Information Sciences Endowment

The department thanks its many alumni and sponsors who have contributed to the endowment and scholarship accounts. As the support from the state is dwindling down every year, we need more of your support to provide that margin of excellence in our programs. Your support has helped us provide scholarships and awards to deserving students. Therefore, THANK YOU and please continue your support. You can send your donations to the Fredonia Foundation's office in the name of the department.

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