The number of internships being offered in computing this summer is a sure sign that the technology sector continues to rebound. Many of our undergraduates have earned challenging positions for this summer in industry or academia.

AJ Palkovic (’10) will be working in New York at Fog Creek Software, home base for Joel Spolsky of JoelOnSoftware.com fame. Kristin Raudonis (’10) accepted a position with Lockheed Martin. Casey Burkhardt (’11) is headed to Mountain View, California as a software engineering intern as part of Google’s Android team to improve the accessibility of Google’s mobile platform. Greg Francis (’11) will be interning with JPMorgan Chase in Wilmington, Delaware, as a technology analyst on their business applications development team. Chris Miller (’11) has an internship with Motorola in Horsham, Pennsylvania, as a business analyst helping to assimilate and assess the technological standards of newly acquired partner companies. Zach Horst (’11) will be an Information Technology intern analyst creating software gadgets and applications for brokers and traders at the New York Stock Exchange.

Nicholas Burns (’12) is joining Computer Sciences Corporation at Sikorsky Aircraft. Michael Dokas (’12) will be at Goldman Sachs in their Operations division. Kurt Lehmer (’12) will work at Villanova on a National Science Foundation research project programming robots with Dr. Peyton-Jones of the Electrical and Computer Engineering department and Dr. Klassner in Computing Sciences. Victoria Suwardiman (’12) is participating in the Distributed Research Experience for Undergraduates, working with Dr. Julie Kientz at the University of Washington, focusing on technology and health education. Ankit Patel (’12) will further develop the Ensemble web portal project with Dr. Cassel this summer at Villanova. Zachary Fanelle (’12) is headed for the summer to the Information Systems department at the South Jersey Healthcare System.

Congratulations to all of our students!

MILWAUKEE BREWS EXCELLENT SYMPOSIUM

The 41st SIGCSE Technical Symposium on Computer Science Education took place in Milwaukee, Wisconsin, March 10-13, 2010. Once again, Villanova computer scientists played active, visible roles in this premier meeting of educators.

Attending this year were faculty members Drs. Beck, Cassel, Goelman and Joyce; alumni Pete DePasquale and Anita Wright; graduate student Sridhara Potluri; past and present adjuncts Drs. Dave and Paula Matuszek and Bob Siegfried; and Dr. Joyce’s son Tom, a student at Susquehanna University (who left the meeting with renewed enthusiasm for computer science).

Dr. Beck, as SIGCSE Symposium Coordinator, was busy planning the 2013 meeting, assisting at the present one, and serving as liaison with the SIGCAS group. He also participated in a Birds-of-Feather session on computing and music, and is a facilitator on a proposed SIGCSE committee on the topic. He even managed to serve as a judge in the student research poster competition.

Dr. Cassel presented a poster on the Ensemble project, in the NSF National Science Digital Library. Together with Sridhara Potluri and Bob Siegfried, she led a successful workshop on the use of Drupal in education. She also moderated an NSF special session on interdisciplinary collaborations.

Dr. Goelman ran a Birds-of-Feather session entitled “Honey, I Shrunk Database Education!”

Dr. Joyce, as secretary of SIGCSE, attended the board meeting, and was an exhibits liaison, a meeter/greeter for Jones and Bartlett publishers (as an author), and a judge in the student research poster competition.

Alumni Dr. DePasquale and Prof. Wright each presented posters at the meeting, and Dr. DiPasquale also led a Birds-of-Feather session on source code commenting.

Once again, Villanova impressed conference attendees with their high levels of participation in the field of computer science education.
The group is developing plans to beta test and eventually release the application next year. The “app” will be “feature-rich, while maintaining a streamlined and intuitive user interface.” Recent presentations to University Information Technolo-gies (UNIT) and a software engineering class were very well received.

Picking classes and arranging them in the perfect schedule is a difficult challenge for students and advisors alike. Thanks to seniors AJ Palkovic, who developed Schedulr, a web-based application that makes class scheduling a snap and Kristin Raudonis, who created Plannr, a related tool for planning future semester courses. Both tools offer visual interfaces that make these complex tasks much easier. After testing in the Computing Sciences Department the tools will be made widely available in the future.

Schedulr makes class scheduling easy.

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**AFTER THE JOB SEARCH, BEFORE THE MORTGAGE**

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**PROFESSOR SHARES ETHICS RESEARCH WITH INTERNATIONAL AUDIENCE**

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**COMPUTING SCIENCES NEWSLETTER**

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**STUDENTS INNOVATE FOR IPHONE AND WEB**

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J unior Casey Burkhardt and freshman Taylor Cliffon are creating an iPhone application which will allow Villanova students, faculty, and staff to easily access information pertinent to them. During the spring semester juniors Timothy Vincent and Vincent Veltri joined the team as part of the Software Engineering course.

The project, dubbed “myNova Mobile,” gives students the ability to check Wildcard account balances, search the existing student directory, and view their grades and course schedules using an iPhone or iPod Touch.

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**STUDENTS INNOVATE FOR IPHONE AND WEB**

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Last year two of my coworkers and I were sent for several months to the main office in Seoul to work with the programming teams directly. It’s a great city, and it was a wonderful experience! The language barrier wasn’t too bad, since many of my coworkers spoke English. I also tried to learn a bit of Korean myself. In fact, the biggest difference was the food. There are only a few American chains, and standard Korean food is very spicy and tends to have different kinds of noodles, rice, and fish. It was usually very good though, so it wasn’t hard to adjust to.

Since then a lot of things have been happening! Besides “Scions of Fate,” I’m now helping manage a new release, called “Cloud Nine.” This includes designing features, planning events and preparing for an upcoming expansion. Other new MGame releases are planned as well.

Of course, there are always the less “fun” aspects, which include writing up reports, investigating problems, monitoring revenue and things like that, but overall I’m very happy with everything and excited about this year.

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**PROFESSOR SHARES ETHICS RESEARCH WITH INTERNATIONAL AUDIENCE**

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Prof. William Fleischman presented two papers at ETHICOMP 2010 held April 14 through 16 in Tarragona, Catalonia, Spain. ETHICOMP 2010 is the eleventh conference in this series of the most highly respected international conferences devoted to ethical issues in computing, information, and communication technology.

Dr. Fleischman’s papers deal with ethical questions relating to the software engineering of electronic voting systems in use in the United States. The first paper, “Electronic Voting Systems and the Therac-25: What Have We Learned?” traces the parallels between faulty engineering design and poor quality of software engineering of the Therac-25, a radiation therapy device implicated in radiation overdose accidents in the 1980’s and in current electronic voting systems.

The second paper, “Electronic Voting Technology, the Software Engineering Code of Ethics, and Conceptions of the Public Good,” considers the perplexing dissonance between engineering codes of ethics, which hold paramount considerations of the public good, and the actual practice of software engineering by those involved in the development of current, deeply flawed electronic voting systems.

In addition to presenting these two refereed papers, which are published in the proceedings of ETHICOMP 2010, Prof. Fleischman served on the Program Committee for ETHICOMP 2010, chaired a session at the conference, and participated in a one-day workshop on a range of current ethical problems in computing and information technology held the day before the official opening of the conference.

Prof. Fleischman has presented his work in the field of computer ethics at four of the previous ETHICOMP conferences, and is widely known as an expert in his field.
MESSAGE FROM THE CHAIR

The demands of the daily activities for the faculty and students divert us from the broader impacts of our work and from the process of planning strategically for the changes in computing. I write this a couple of days after Apple sold 500,000 iPads; as I write I wonder whether it would be faster to speak this message for voice recognition software. Or should I have it in 140 character chunks suitable as tweets.

Regardless of the innovations in computing and systems, most of our work will be in face to face meetings—classes, research teams, software development groups. For instance, one of our student teams, Thomas Carpenter, Kristin Scudder, Greg Francis and Zach Horst software are working on an iPhone application named V-Swipe (Virtual Swiper) that enables students to earn credit for attending basketball games at the Wachovia Center, without having to get their wildcard swiped by a swiper at the game. This is the kind of experience that employers look for in computer science majors.

Employers keep calling and wanting our very best and brightest. For example, ReminderMedia needs at least three talented PHP programmers, while AWeber Media wants up to seven developers.

The job demand for men and women in technology is booming. According to a jobweb.com article, the most in demand degrees in 2009 are in Business, Engineering, and Technical Majors. According the CNBC’s Highest Paid Degrees of 2009, Computer Science is ranked 3rd at an average starting salary of the mid $50,000s. As businesses become more technologically dependent, the future job market couldn’t look better.

With this in mind I commend our long time instructor, Barbara Zimmerman, who was again recognized as a recipient of the Bridgebuilder’s Award from Learning Support Services. The citation says: “Your professionalism, combined with your caring attitude, continue to validate Villanova’s mission.” Congratulations, Barb!

Senior Projects is the chance for synthesis, the opportunity to demonstrate teamwork and sophisticated software development, and the capstone of the computer science major. Last fall three teams of seniors took on clever and challenging projects. One team ported the Jewel Nabber game originally written for the Game Development course to the iPhone platform. Another explored multi-touch interfaces by building a multi-touch table and programming several applications for it. The last team developed course scheduling software called Schedulr and Plannr (see page 2) using 32 different tools and systems for their project development including editors, version control systems, programming languages, and software tools. The applications make it easier for students to pick courses and for departments to design future schedules.

BITS & BYTES

Dr. Lillian Cassel has been helping the National Science Foundation as an interim program director. She recently organized workshops for recipients of Computing Pathways grants (including two at Villanova) and for high school teachers who have partnered with Computing Pathways projects. A number of graduate students assisted with the organizational efforts, including Sridhara Poturi, Avinashgoud Mandadi and Usha Bhavanam.

Christian Science Monitor’s “Top Picks” for the week chose Villanova’s 360-degree tour of the Vatican’s Sistine Chapel for their featured video. The video provides a vivid and spectacular Internet tour of the Sistine Chapel including Michelangelo’s famous frescoes. The project, originally demonstrated for the Vatican by Dr. Frank Klassner who proposed creating tours of their notable sites. The project thrives under direction of Dr. Klassner and Dr. Beck, and is now an ongoing collaborative effort with the Communications Department that involves both students and faculty.

Dr. Robert Beck and Christine Nass (Music Activities) attended the CPATH workshop and continue to develop plans for the national curriculum guide for Computing and the Arts. Other curriculum guides will be companion volumes. These guides are an outgrowth of the Living KnowlEdge Society project. Villanova is a participant along with Virginia Tech, Santa Clara University, and North Carolina A&T.

Dr. Tom Way also attended the CPATH workshop and together with Dr. Cassel continued growing their partnership with collaborators to explore uses of “distributed expertise” in computer science education.

In February 2010, Dr. Mirela Damian joined a selected group of researchers at the 22nd winter workshop on Computational Geometry at Bellairs Research Institute of McGill University in Heotolian, West Indies. The group spent a week working on open problems in the field, including geometric graphs induced by smart wireless antennas.

Our programming team, Al Palkovic, Taylor Clifton, and Kory Kirk, competed in this year’s Battlecode competition at MIT. There were two tournaments, the DRW and the Open Tournaments, and they placed 6th and 7th respectively among non-MIT teams out of over 100 teams competing.

Graduate students Santosh Sode and Karthikeya Bhamidipalli helped refurbish and configure open source software 8 IBM ThinkPads and 4 Dell Desktops that were donated to the cityTeam Ministries, a non-profit organization serving the poor and homeless in Chester, Pa. (www.cityteam.org)

Freshman Bianca Isidro and Kristin Arcurio have been working for the department’s web team, improving the images used throughout the site and learning about web technologies. Look for an improved web page for Dr. Joyce soon since, they have been using his page to test their new techniques.

Wendy Hillegass (’04), Google Software Engineer, visited in March and held a colloquium and workshop on interviewing for internships and jobs at Google. She also visited a class and also met with students, giving them career and academic advice.
During the Spring 2010 semester, Villanova Computer Science majors senior Aj Palkovic, junior Casey Burkhardt, and freshman Taylor Clifton have been continuing work with the Julia de Burgos Elementary School in Philadelphia to provide technology services to its students. These volunteers have been busy refurbishing laptops and preparing computer lessons for twenty students from the school.

The elementary students from Julia de Burgos spent four Saturdays on the Villanova campus learning about computer hardware and software, the Internet, and website development. At the end of the program, the students are given the computers they have been using throughout the seminars with the hope that they will share what they have learned with their fellow students.

In the final session the students will be awarded their laptops, and given a final review and summary of the material they have learned. The volunteers from Villanova report that “It is a great feeling to see the kids come in each Saturday ready to learn with smiles on their faces.”