

Fall 2001

multicast

UNIVERSITY OF ROCHESTER **COMPUTER SCIENCE DEPARTMENT** NEWSLETTER

In this issue:

From the Chair

Our first newsletter!

(page 2)

Faculty

2 new faculty
join ranks in CSC

(page 2 & 3)

Research

What's new?

(page 4)

Alumni

Reports from afar

(page 5)

Undergraduate

Our undergraduate major grows

(page 6 & 7)

CS Department Wins 4th Infrastructure Award

A team of CS faculty led by Randal Nelson obtained an NSF Research Infrastructure award providing approximately \$1.85 million for hardware and staff support over a five year period. This is the fourth in a series of 5 year NSF infrastructure grants that have provided a significant portion of the department's research hardware since the original CER grant in 1984 that bought the original BBN butterfly parallel processor.

The current grant, entitled "Spatial Intelligence for Computer Enhanced Interaction with Physical Environments" is intended to equip a laboratory and provide infrastructure support dedicated to investigating the topic of spatial intelligence for machine augmentation of human abilities.

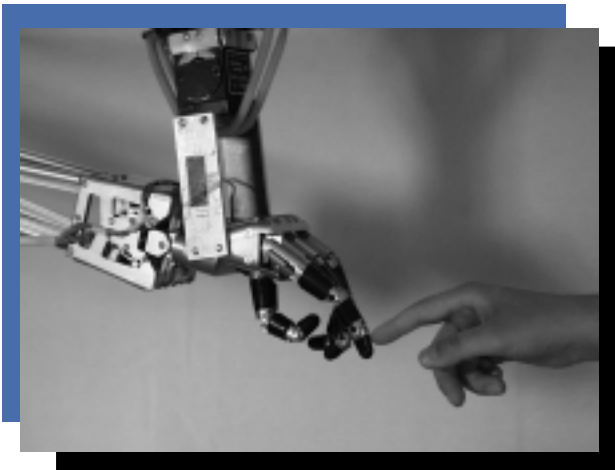
The project is motivated by the observation that in the 21st century, intelligent computer systems will increasingly stand not just between people and abstracted information, but between people and physical environments, both real and virtual. These systems would ideally augment human perceptual and physical abilities in a natural and transparent manner. A canonical example of such a system, though certainly not the only one, is a robot with whom one can converse.

To mediate between people and the world, an intelligent system must perceive spatial structure of various sorts and competently execute physical actions. At the same time, it must communicate with human users to provide information, accept instruction or assist interactively with complex tasks. These two domains --- interaction with the world and interaction with people --- have historically been explored in very different ways, usually independently. Full systems that can talk meaningfully to a user about what they are doing in the physical world are rare.

The term "spatial intelligence" refers to the overarching ability to perceive, act in and communicate about a physical environment. Creating spatial intelligence depends on a variety of enabling technologies, including knowledge representation, natural language understanding, reasoning and learning, vision and object recognition, computer graphics, virtual and augmented reality, and distributed and parallel computation. These technologies are in the process of crossing a threshold at which useful, end-to-end, spatially intelligent systems will become viable for the first time. The creation of these systems presents exciting new opportunities and challenges.

The ultimate goal of the project is to create a flexible spatial intelligence with which human users can interact naturally to carry out a variety of collaborative tasks. To achieve this end, RI funds will be used to create and equip a laboratory resource specifically designed both to advance the state of the art in the various enabling technologies, and to facilitate and demonstrate their integration in an end-to-end context, both in simulation (for rapid prototyping) and in real-world domains.

This grant will augment and extend the capabilities of the department's current laboratories, including the vision and robotics ethernet, parallel computational resources, and development stations distributed over the department.





Mitsu Ogihara

From The Chair....

Hello, everyone! I hope this newsletter finds you well. As you know, we celebrated our 25th birthday in October, 2000, in conjunction with the University of Rochester's sesquicentennial anniversary. The celebration was quite successful. Many familiar faces returned to Rochester for this event. During the event, we learned that many of you are very interested hearing about whereabouts of your classmates and recent development in the department. To accommodate such needs, we have decided to launch the Department of Computer Science Newsletter, *Multicast*. With this newsletter, we are hoping to reach each of our alumni and disseminate information about everything pertaining to the department.

I am very pleased to announce that the department has been funded for the fourth time by the National Science Foundation's Research Infrastructure Program (see Award article, page 1). The project includes nearly a half of the department faculty and aims at integrating various research areas of the department. The 21st century will be characterized by ubiquitous computation and torrents of information. Thus, a key to success in the computer science research and educa-

"We are very excited about the arrival of the newsletter."

tion in this century will be multidisciplinary research. Over the past decade, the department has intensified its focus on multidisciplinary research. Many of our faculty members are engaged in multidisciplinary research projects, including such departments as Biology, Brain and Cognitive Science, Chemistry, Electrical and Computer Engineering, Physics and Astronomy, Neurobiology, Neurosurgery, Optics, and Political Science, and such Centers as Aging, Future Health, Laser Energetics, and Oral Biology. We will continue our efforts to produce world-class research and to instill in our students the ability to collaborate with people with different backgrounds.

Our undergraduate program is showing a steady growth. This past May, thirty-eight students graduated with a Bachelors degree and nearly fifty Bachelors will be graduating next May. Of the 1,025 incoming freshmen, a little less than seventy students are interested in majoring in CS. We will be adding three new CS courses this Fall (Cryptography, taught by Chris Brown, Mobile Computing, taught by Amy Murphy, and Computational Biology, taught by myself). We will keep working hard to improve our curriculum.

We are very excited about the arrival of the newsletter. We hope you feel the same. To make the newsletter informative your feedback will be crucial. If you have any suggestions or comments, please be sure to let us know via ogihara@cs.rochester.edu or multicast@cs.rochester.edu.

Faculty News

Michael L. Scott received the Goergen Award for Distinguished Achievement and Artistry in Undergraduate Education at the Convocation Program on September 7, 2001.

Wendi Heinzelman, Professor of Electrical and Computer Engineering, has received a secondary appointment in Computer Science.

Sandhya Dwarkadas has been promoted to Associate Professor with tenure in Computer Science.

Michael L. Scott & Sandhya Dwarkadas have been appointed Research Scientists at UR's Laboratory for Laser Energetics.

Kyros Kutulakos has received a Sloan Research Fellowship.

Jochen Triesch, post doctoral fellow for Dana Ballard, has accepted a faculty position at University of California at San Diego.

Chen Ding received the Best Paper award at IPDPS 2001.

Mitsu Ogihara has been appointed to the editorial board of the journal *Theory of Computing Systems*.

Dave Albonesi has received the IBM Faculty Partnership Award.

Sesquicentennial & 25th Recap

<http://www.cs.rochester.edu/dept/25th/>

In October 2000 the department celebrated its 25th anniversary in conjunction with the university-wide celebration of our Sesquicentennial. On our 25th Anniversary website you will find excerpts from the department photo album, a program of events, and pictures from the 25th Anniversary dinner. One of the high points of the evening was the reminiscences from Jill Forster, who has been with the department since its inception.

Jill recalled, upon being offered the job in 1974 in the newly forming Department of Computer Science, "that I was not all that certain I should accept the offer since I was a bit leery of this Feldman guy from California."

Twenty-five years later, with ~200 alumni and friends in attendance at our gala event, it was apparent that our URCS family has grown. Our departmental Open House, held on Friday and Saturday, gave alumni, parents & friends a chance to see demonstrations of current research, as well as time to visit & get reacquainted. Tales of costume parties, match-making, scarcity of computing resources, softball teams, April Fool's jokes, hockey games, and first year all-nighters brought back the memories. Jill's face said it all, as she smiled from ear to ear welcoming back her CS family.

Please consider the Department of Computer Science and UR in your giving plans. For information on how to make a gift, please contact the University's Gift Office at 716-275-8602 or giftoffice@admin.rochester.edu

Two new faculty join department

Chen Ding

A love of teaching attracts compiler specialist to academia instead of industry

Chen Ding joined the department faculty in July, 2000, after completing his Ph.D. under Ken Kennedy at Rice University. He has the unusual distinction of having had two UR alumni on his thesis committee, John Mellor-Crummey and Alan Cox.

His research is in compiler technology, specifically in using compilers to generate programs that make better use of the caches on modern machines. Over the past 20 years, while CPU speed has improved by a factor of 6400, memory bandwidth has increased by a factor of less than 150. Caches help to narrow the gap, but many important programs do not make good use of cache, and are therefore unable to utilize even a few percent of peak CPU speed. Chen's thesis work developed a two-step optimization strategy that reorganizes the code so that instructions that use the same data occur close together in time, and then reorganizes the data so that variables that are used at about the same time lie near each other in memory. For large scientific applications drawn from major benchmark suites, this strategy was able to reduce the demand for memory bandwidth by as much as 80%.

A love of teaching, in addition to research, was the single most determining factor



Chen Ding

in Chen's decision to choose an academic job over industry R&D. His first teaching assignment was Programming Systems, where he worked with students to understand programming languages through implementation. In a class project, students built a compiler for a subset of the C language plus a form of polymorphism. With the addition of polymorphism, their compilers could do things that even commercial C compilers cannot.

Chen's extra-curricular activities include medium-distance running along two routes around the Rochester area. They include the path along the Genesee River campus and a longer run through Highland Park and Mt. Hope Cemetery. A new student of racketball under the coaching of Dana Ballard, he recently purchased a racket and goggles. We haven't been able to get Chen to buy a pair of hockey skates yet, but a few more Rochester winters & who knows!

Amy Murphy

Murphy brings solutions to the complexities of mobile computing to Rochester



Amy Murphy

Amy Murphy joined the faculty in August of 2000, shortly after receiving her doctoral degree from Washington University in St. Louis, Missouri.

Her research goals are centered around making it easier to design and build applications for mobile environments, in particular ad hoc mobile networks where computers communicate directly with one another without utilizing any fixed infrastructure. This environment poses many challenges to application programmers because not all participants are known in advance, and the connections among hosts change rapidly. While a graduate student, Amy developed the LIME (Linda in a Mobile Environment, <http://lime.sourceforge.net>) mobile middleware system which transparently handles many of the complexities of the mobile environment. LIME presents the designer with the simple abstraction of a tuple space for coordination among mobile components, and transparently reconfigures this tuple space as connections among hosts change.

At the U of R, Amy is continuing to explore LIME in the context of the Center for Future Health, increasing its flexibility and robustness. Concurrently, she is developing new models of communication which allow hosts to communicate with one another even if they are never directly or transitively connected.

In addition to wandering around the department exploiting the new wireless network, Amy actively trains in traditional karate and enjoys jogging around her new Park Ave. neighborhood. She is also a novice juggler, always looking for passing partners and people to exchange interesting tricks.

Join us for Meliora Weekend! October 12-14, 2001
For more info: <http://www.rochester.edu/alumni/meliora2001>

Research at Rochester

Symbolic A.I.

Len Schubert and his students have been working on corpus-based guidance of a linguistically well-founded parser, discovery of state constraints in planning domains (DISCOPLAN), the semantics of events in NLU, and mining general knowledge from texts, among other things.

Henry Kyburg's book, *Uncertain Inference*, written with Choh Man Teng, was published by Cambridge University Press. Henry also edited, with Mariam Thalos, an issue of *The Monist* on "Probability as a guide in life." Current projects include "Choosing Among Interpretations of Probability" (NSF), another NSF project with Len, and a NASA project.

James Allen, George Ferguson, and the rest of the TRIPS group are continuing their work on conversational assistants. Key subjects include managing dynamic situations, portable and adaptable NLP, reference to abstract and complex entities, incremental generation (and processing), and much more. A new focus is on home health care, as part of the Center for Future Health.

Spatial A.I.

Randal Nelson is supervising the construction of an environment with multiple computational sensors (visual and auditory) for intelligent interaction and complex scene understanding.

In related work, Chris Brown's students are tracking humans using infrared sensors, and realistically augmenting graphical interfaces.

Dana Ballard and Mary Hayhoe's virtual reality laboratory has acquired a Hi-Ball tracker and is looking into laser-scanning 3-D cameras.

Kyros Kutulakos and students have developed multi-camera probabilistic and deterministic shape reconstruction algorithms coping with specularities, motion, and complex reflectance.

Systems

Research in the Systems group has broadened greatly with our recent hires, and with strengthening ties to the Computer Engineering group within Electrical and Computer Engineering.

Perhaps the most visible evidence of those latter ties is a 4-year, \$4M inter-departmental DARPA contract (David Albonese, PI) in the area of low-power processor design. This project made something of a splash in the popular press this year, with articles in (among other places) SlashDot and the New York Times.

A second major group project, InterWeave, also made great strides this year. Using the InterWeave library and runtime, programs running anywhere on the Internet, on any hardware architecture, can share variables safely, conveniently and efficiently, with parallel applications running on our AlphaServer cluster.

Theory

Lane Hemaspaandra's Undergraduate Problem Seminar was a great success. With Edith Hemaspaandra and Lane's former Ph.D. student Marius Zimand, he proved that polynomial-time quantum computation is exponentially faster than classical computing. With Kari Pasanen of Finland and former URCS postdoc Joerg Rothe, he studied the complexity of one-way functions.

Mitsu Ogihara's new Quest course, Introduction to Computational Biology, taught with John Huelsenbeck of the Department of Biology, was well received. With Seinosuke Toda, he proved #P-completeness of counting self-avoiding walks.

Joel Seiferas has shown, with his former Ph.D. student Ioan Macarie, that probabilistic advantages can be amplified without using any additional space!

Graduate Alumni (continued on Page 5)

Ailamaki, Anastassia (Natassa) (MS-'97) finished her graduate studies at U. Wisconsin and is now an assistant professor at Carnegie Mellon University.

Altman, Art (MS-'87) developed and runs a business for the Electric Power Research Institute of Palo Alto, California, which helps electric utilities and energy trading companies value energy derivatives and manage the risk of energy trading. He says, "We provide software, methodology, and seminars. This happens to be an urgent need these days given the trend towards deregulation of the electricity business, and it's very gratifying work."

Ball, Gene (PhD-'83) Rumor has it that he has retired from Microsoft Research. This could be a first among our alumni!

Bolosky, Bill (PhD-'93) was promoted to Sr. Researcher at Microsoft Research last year, and he and his wife Robin Wechkin have a baby boy, Sam.

Coombs, Dave (PhD-'92) is now with DOBI Medical Systems. He says, "We're hoping that being located in greater NYC metro area will work out well for both Melissa's singing and interesting work for me. The boys (Ian, 6, and Nat, 2) are doing well: lots of energy and fun."

Crovella, Mark (PhD-'94) was promoted to Associate Professor at Boston University last year, and in 1999 Mark co-founded a small company which eventually became part of Network Appliance, where he now spends part of his time as a Technical Director. Mark and his wife had twin boys, Ian and Colin, in July 1998, who joined Benjamin (now 16) and Emily (13).

Crowl, Lawrence (PhD-'91), at Sun Microsystems in Palo Alto, received a

promotion to Senior Staff Engineer.

Deng, Yuxin (Denise) (MS-'96) is still working for Microsoft but in China (primarily Beijing), where she presents Microsoft.net at colleges and universities.

de Sa, Virginia (PhD-'94) was married 9/2/2001 and joined the faculty at UCSD, Dept. of Cognitive Science as an assistant professor.

Dibble, Peter (PhD-'90), at Microware Systems Corp. in Des Moines, IA, says "The thing I'm proudest of is my 12 adopted children. We have been foster parents of more than 30 children and kept 12 of them. They are, of course, wonderful. :-)"

Floyd, Rick (PhD-'89), who works at IBM in Research Triangle Park, and Carla Ellis (a former UR faculty member who is now at Duke) have announced their engagement, and will be married in early October!

Gradischnig, Klaus (MS-'81) and his wife Suzanne have moved from Germany to the US. Klaus is working for NeuStar, Inc. in the D.C. area and they have just bought a home in Reston, VA.

Heliotis, Jim (PhD-'84), who is a Professor in Computer Science at RIT, writes that his daughter Sasha, who was born while he was finishing his thesis, is starting at RIT this fall in Photography. Jim says "She'll be living on campus, and hopes not to bump into me 'too often'!"

Istrate, Gabi (PhD-'99) has finished his postdoctoral fellowship at LANL and accepted a staff position there, in D-2 Basic and Applied Simulation Science.

Jackson, Kerj (MS-'89) is working for Cygnifi Derivatives Technology in NYC.

Jagersand, Martin (PhD-'98) has joined the Dept. of Computing Science at the

Alumni News

Undergraduate Alumni

Anderson, Darrell '96 - Darrell is finishing up his Ph.D. in Computer Science at Duke University. He had papers in SIGCOMM 00, OSDI-00, SOSP 01 and will be on the program committee of USENIX 02.

Bahirwani, Anand '00 - writes, "Fortunately, I'm still working at Teradyne in Boston. I'm only 23 & I've survived two rounds of layoffs already! I'm overwhelmed by the responsibility that code I write will be used by customers who pay millions of dollars (for the whole system) for the next 10 years! The whole situation is a little scary but then again, that's what makes it more interesting & fun."

Bakken, Luke '98 - married Margaret Bowles (UR Physics) on 4/2/2000. They both play in the Spokane Symphony Orchester, Spokane, WA. He's currently working at Gentronics as a developer.

Barnett, Elliot '97 - works in Network Storage at Sun. He's the proud father of 18 mo. old son Zak, and will be starting his Masters this fall.

Bent, Russ '00 - married Sabrina Parks ('00) on 12/30/2000. He is entering the 2nd year of his Ph.D program at Brown, and is studying combinatorial optimization & stochastic programming with Pascal Van Hentenryck.

Berlin, Dan '01 - will begin law school at Boston University this fall.

Blumberg, Josh '97 - spends his time hiking through the Rockies, visiting classmates on the west coast, and occasionally working as a programmer in Baltimore to support his wanderlust. He'll be settling down at The EagleRock School in Colorado for a one year stint running the computer labs, teaching an occasional course and taking the students hiking.

Bodek, Haim '95 - married Elizabeth Bonheim (UR B.A. 1994, Music) in Oct, 1997. She is now Elizabeth Bonheim Bodek. Haim was promoted in 1/2001 to Vice-President in Financial Engineering, Hull Equities Division, Goldman Sachs. They live in Chicago.

Chandiramani, Sapna '98 - continues to work for Oracle, but has moved from the Boston area to Bangalore, India.

Chang, Allison '01 - is working for the City & County of Honolulu.

Gerega, Aaron '99 - is working for Lockheed Martin in Syracuse & completed his Masters at Syracuse University this summer.

Gillis Mazzeo, Marlene '99 - works at Bausch & Lomb in their PeopleSoft HR department. She married Thomas Mazzeo on June 30, 2001.

Giuliano, Mark '82 - writes: "I continue to work at the Space Telescope Science Institute in Baltimore, MD where I am a technical manager for a team which develops A.I. applications for planning and scheduling observations on the Hubble Space Telescope. I live outside Baltimore with my wife, Cathy Raab (UR '83 English), and our children Elijah (6), and Jonah (4)."

Harman, Craig '00 - completed his Take 5 in 5/2000 and works as a staff member in the Dept. of Dermatology & the Center for Future Health at UR.

Hill, Brandeis '00 - enters her second year in the Ph.D. program in Computer Science at RPI.

Inamdar, Pete '00 - began his new job at tradecard (www.tradecard.com). He's still living in Brooklyn.

Inikori, Jonah '98 - works for Xerox as a software engineer doing system architecture and development.

Leselrod, Mike '99 - married Lorna Schweibish on 8/22/99 and continues to work at Programming Concepts on Long Island.

Luis, Cristina '01 - entered her first year in the PhD Program in Geology at the University of Arizona.

Mitchell, Andrew '94 - works for Fidelity Investments as their UNIX system administrator & lives in Concord, MA.

Mohan, Shailan '99 - works for ClickTheButton.com in NYC.

Moldover, Jonathan '99 - his band "Me First" will be on a nationwide concert tour as the opening band for punk group Agent Orange.

Muderick, Aaron '98 - married Elizabeth Perry 6/18/2000, started an e-Business strategic consultancy company called Tybio (tybio.com) & launched his

(continued on page 7)

Graduate Alumni

University of Alberta in Edmonton as an assistant professor.

Litman, Diane (PhD-'86) joined the faculty at the University of Pittsburgh this fall, with a joint appointment in the Department of Computer Science and the Learning Research and Development Center.

Marsh, Brian (PhD-'92) is now VP of Engineering at Appliant in Seattle, WA (and lives on a houseboat in Lake Union). Brian was one of the founders of Appliant, which builds performance management software for the web and runs a hosted service.

Meltzer, Cliff (MS-'77) is still with Digital Fountain but the company has moved to Fremont, CA.

Michael, Maged (PhD-'97) and Shumin Guo (MS-'95) had their first child, a baby boy named Daniel, in December, 2000.

Newman, Nemo (Richard) (PhD-'87) is on sabbatical from the University of Florida for the '01-'02 academic year. He and his wife Frances and sons John, James, and

(continued on page 4)

Julian are living in Miami while he is working at Florida Int'l. University and the Naval Research Laboratory.

Parthasarathy, Srinji (PhD-'00), at Ohio State University, reports that he won an Ameritech Faculty Fellowship for 2001-2002 for his work on network intrusion detection.

Poesio, Massimo (PhD-'93) has moved from Edinburgh to the University of Essex in Colchester, where he is a Senior Lecturer.

Pook, Polly (PhD-'96) is Director of Research at iRobot Corporation in Somerville, MA, which used to be IS Robotics.

Raman, Rafeev (PhD-'93) has moved to the University of Leicester, Department of Mathematics & Computer Science, as an assistant professor of computer science.

Rao, Raj (PhD-'98) received a Sloan Research fellowship for junior faculty at the CSE Dept. at the University of Washington.

Ringger, Eric (PhD-'00) and his wife have a daughter Hilde who is 1.5 years old and "has long curly hair and is very lively." Hilde joins three older brothers - Malcolm (8), Seth (6), and Edward (4). Eric says that being a father has been a happy responsibility.

Salas, Ricardo (MS-'78) is living in Cambridge, MA and is starting a new company. His email address is rsalas@unveil.com.

Salgian, Garbis (PhD-'98) and Andrea Selinger (PhD-'01) were married on August 11, 2001 and live in Princeton, NJ.

Shapiro, Jonathan (PhD-'80) says "I have been spun off (again) and am now working for Volera, Inc."

Traum, David (PhD-'95) has moved to LA ("right near the beach") and is working at the Institute for Creative Technology at USC.

Turner, Paul (MS-'88) is doing consulting in California.

Veenstra, Jack (PhD-'95) and his wife Laura are expecting their first baby this September. Jack is at SandCraft, Inc. in Santa Clara, CA (which makes MIPS microprocessors).

von Kaenel, Peter (MS-'94), works at Princeton Video Image, Inc., and he and his wife Joting have a 10-month-old son named Zelan.

Vyskoc, Josef (MS-'92) is co-owner of a consulting company in Bratislava and also an external lecturer (on information security) for two universities.

Whitehead, Steve (PhD-'92) moved to a new job at Nortel Networks in Billerica, MA last October. Steve says "I'm working on embedded software for the Shasta 5000 Broadband Service Node-a broadband edge/IP Services router. Given the current downturn in the telecom industry, I may not be employed at Nortel by the time the newsletter comes out :-)-but that's where I am today."

Wisniewski, Bob (PhD-'96), is at IBMT.J. Watson Research Center, and was married on 21 July 2001.

Wixson, Lambert (PhD-'94) is getting married this October to Stella Reisch, who attended the alumni reunion with Lambert last year.

Yamauchi, Brian (MS-'90) is working at iRobot Corporation in Somerville, MA, as a senior roboticist along with Polly Pook.

Congratulations to the Class of 2001

Tigran Airapetian
Tyrone Baird
Yoel Bakas
Daniel Berlin
Thomas Bulatewicz
Allison Chang
Yung Cheng
Tomasz Czajka
Saqib Feroz
Daniel Fonseca
Y. Maria French
Gregory Goldstein
Jeffrey Hamilton
Vikram Kekre
Jeffrey Kenney
Hyong-Youb Kim
Jason Ku
Michael Lehr
Edward Liveikis
Christina Luis
Frederick Marcus
Jason Miller
Kirill Osipov
Grace Pok
Donald Reiman
Kiana Ross
Nickolas Rutar
Dennis Schmidt
Peter Schweitzer
Sarah Siracuse
Steffin Spears
Robert Swier
Franklyn Tamalenus
Bryan Thibodeau
James Tomson
Benjamin VanDurme
Alden Wang
Kevin Yurasits

Undergraduate News

Update on the Undergrad Program

The undergraduate program, which graduated its first class in 1996, has been built on more than twenty years of world class research at the graduate level. Our curriculum is highly rigorous, and considered one of the most difficult majors on campus.

The program has strengthened considerably in both enrollment & ranking since we first began. In 1996 our first class graduated 9 students. This number has grown to an expected 50 students for the class of 2002. Needless to say, class sizes are growing at all levels, and most of our core courses are no longer able to fit in classrooms in the Computer Studies Building!

Our undergraduates benefit from the wonderful research opportunities that exist in the department.

The degree programs offered are a B.S., a B.A., and a minor, all in Computer Science. They are designed to be flexible enough to satisfy the needs of all students in the College interested in computer science. Their goals are twofold: (1) to give students a solid and rigorous background in computer science principles, including the requisite mathematical foundations, and (2) to expose students to the problems and solution techniques used in the various areas of the discipline.

Our undergraduates benefit from the wonderful research opportunities that exist in the department. During 2000-2001 we had students working on research topics such as bioinformatics, human pose estimation, question answering systems, value judgements for automotive vehicles, image-guided surgery, controlling microphone arrays, mobile robotics, human-computer interface & software

engineering, and high performance planning. Interdisciplinary research areas are spanning departments in the college, the School of Engineering, and the School of Medicine & Dentistry.

In addition to access to research labs, declared majors and students taking advanced coursework in Computer Science have use of two labs in the Computer Studies Building. Open 24 hours a day, these labs are home away from home for many, and it's not uncommon during busy project weeks to find sleeping bodies on the floor or face-planted into the keyboard at 8AM. In recent years, there has been an emphasis on increasing remote accessibility rather than adding more workstations in the lab, as the department's physical space in the Computer Studies Building has not expanded beyond the 6th & 7th floors.

In the few short years the undergraduate program has been in existence, we have produced a group of well trained, highly recruited graduates who have been contributing to computer industry throughout the country & the world. If your organization has the need for summer interns or full-time graduates, put UR on your list of places to recruit.

New ACM Chapter on campus!

An active ACM chapter was begun this year, under the direction of an enthusiastic advisor, new faculty member Amy Murphy. As the number of majors increases, the chapter's role will certainly become more prominent. For three years we have sent at least two teams to ACM/IBM's annual programming competition, each year getting to the regional competition. This year was our highest finish at regionals, behind MIT, Harvard & UMass (Amherst). According to the students, our problem solving skills are up there with the best - if they could only code a little faster! Not enough homework practice, but we won't tell the faculty.

Tight Job Market Affects Recent Grads

News from the Class of 1999 & 2000 shows that company downsizing & dot.com failures are leaving many job hunting in a very difficult market. Not exclusively a Silicon Valley problem, reports from the east coast have shown the problem is common there as well. Though alumni are finding new opportunities less plentiful than when they graduated, they have good education and work skills to offer, making them ideal candidates.

Peenak Inamdar ('00) writes, "I think a lot of us are caught in this tidal wave of sobering realizations, and have found ourselves looking for new jobs not because we didn't have the "right stuff" or the heart, but simply because we entered a profession that was in the midst of a gold rush."

Networking opportunities are important. If you are in a position to hire anyone, please think of sending job postings to the department, so that we can circulate and share them with alumni & current students.

Mobile Robot class sparks research

Jonathan Schmid's ('03) enthusiasm for robots is spreading! After participating in Chris Brown's Fall 2000 Mobile Robotics class, Jon has been investigating new hardware options for CB's future robot class, and becoming more involved in mobile robotics daily. Spending the summer working for AppleAid (Amherst, NY), Jon's working on optic flow-based navigation research. For the fall he's gathered a group of eight CSC students and three ECE students, as well as enlisted faculty help from Chris Brown & ECE's Senior Lecturer Victor Derefinko to enter AAAI's robotics contest next summer called "Hors d'oeuvres, anyone?". Using a Pioneer DX2 (from ActivMedia) the CSC team has divided the work into 3 areas: language interface & signal processing (headed by David Feil-Siefer ('03)), artificial intelligence & behaviors (lead by Ross Camara ('03)), and vision & face recognition (lead by Schmid). This two semester independent study promises to challenge, frustrate & excite the team as they prepare their robot to serve hors d'oeuvres to a room full of people. Says Feil-Siefer, "I am supposed to construct a way to understand human speech even in a crowded room with a lot of background noise. That's the biggest problem to overcome." Will the robot recognize the shapes as people, will it understand what the people say, and will it prevent the same people from eating too much? This is yet to be seen. Next spring, the halls will be filled with "Rumaki anyone?".

Save the Date!
Meliora Weekend
October 12-14, 2001
Class Reunions
Stonehurst Regatta
& much more!

Send news &
notes to:
multicast@cs.rochester.edu
Keep us
informed!

For more information about Undergraduate study
go to : <http://www.csug.rochester.edu>

UG advisors kept very busy

With the growth of the undergraduate program, administration of day to day aspects of the program has fallen on the Undergraduate Program Director, Ted Pawlicki. Ted came to us from Kodak in 1998 and teaches several of the introductory courses. He manages the TA structure for all of the CS courses, does undergraduate advising, signs students into the major, coordinates the workshop program with the Learning Assistance Center, and manages to do some research on the side as well. Assisting him with all aspects of the undergraduate program is staff member Marty Guenther. If you want any information about the undergraduate program, including prospective student tours, don't hesitate to contact Marty (marty@cs.rochester.edu or 716-275-4505).

Alumni news (from page 5)

Crazy Aaron's Thinking Putty business (www.puttyworld.com) in 3/2001.

Pincus, Josh '99 - works for Sun Microsystems in Palo Alto, CA.

Rau, Alex '99 - writes, "I left Enock in April, worked on some music, got some work in very minor documentaries, and just began a consultant job at AIG doing XML integration."

Ridder Allen, Amanda '97 - married Brad Allen (UR '96 Optics/MTH) on 7/25/99. Daughter Julia (UR class of ~2023) is 7 months old. Amanda's currently working part time for Auragen Communications, Rochester, with a number of other UR grads.

Ross, Kiana '01 - is working for TRW Systems in Redondo Beach, CA & lives near the beach.

Sankar, Nandi '97 - got married in August, 2000 to Rishi Piparaiya who is also an alumnus of UR ('96-ECO & EE). She is now the Head of Technology at GlobeOp Financial Services which is a firm that provides services to hedge funds. No babies yet!

Srinivasan, Gururaj '97 - writes "I am still working at EMC Corporation writing code to interact with library units and tape drives. I haven't gotten married as far as I know and hopefully I have no children."

Stern, Mia K. '95 - has completed her Ph.D. at the University of Massachusetts, Amherst, and has taken a PostDoc at Lotus Research in Cambridge, MA.

VanDurme, Ben '01 - started working for the AI group at Lockheed Martin's Advanced Technology Lab in Camden, NJ.

Ventura, Scott '97 - works at Xerox in their image processing division, and continues to enjoy singing barbershop style music, currently with the Chorus of the Genesee.

Wong, Chi '99 - works for Nortel Networks, NorthEast Global Customer Care Services division as a System Engineer.

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To locate graduate alumni go to: www.cs.rochester.edu/users/alumni/

Graduate Students Move on....

Jessica Bayliss - “A Flexible Brain-Computer Interface” (Dana Ballard) has joined the faculty at Rochester Institute of Technology as an Assistant Professor in Computer Science.

Rodrigo Carceroni - “Recovering Non-Rigid 3D Motion, Shape and Reflectance from Multi-View Image Sequences: A Differential-Geometric Approach” (Kyros Kutulakos) will be affiliated with the Department of Computer Science of the Federal University of Minas Gerais (UFMG) in Belo Horizonte, MG, Brazil as a Post-Doctoral Fellow.

Aaron N. Kaplan- “A Computational Model of Belief” (Henry Kyburg) has joined Xerox Research Center Europe in Grenoble, France.

Amon B. Seagull - “Well-Foundedness and Reliability in Statistical Natural Language Parsing” (Henry Kyburg) is a member of the faculty in the Department of Math & Computer Science at the College of Wooster, Wooster, Ohio.

Andrea Selinger - “Analysis and Applications of Feature-Based Object Recognition” (Randal Nelson) has joined Equinox, Inc. in New York City as a systems engineer.

Amit Singhal - “Bayesian Evidence Combination for Region Labeling” (Chris Brown) is a Senior Research Scientist with the Imaging Science Technology Lab at Kodak in Rochester.

Amanda Stent - “Dialogue Systems as Conversational Partners: Applying Conversation Acts Theory to Natural Language Generation for Task-Oriented Mixed-Initiative Spoken Dialogue” (James Allen) has joined AT&T (NJ) until January 2002 after which she will be an assistant professor at SUNY Stony Brook in the Computer Science department.

Michael P. Van Wie - “Role Selection in Teams of Non-Communicating Agents” (Chris Brown) is with Motorola in Berkeley, CA.