Faculty development continues to be our top priority and we have many announcements to make. First, we have been delighted to welcome Associate Professor Carlo Tomasi to our ranks. Carlo is an expert in computer vision who comes to us from Stanford University, and he has quickly begun to integrate into our research and teaching programs. Carlo is doing work in the automatic recognition of cancerous tissue in conjunction with the School of Medicine, on robot stereo vision, and generic problems in image processing. Second, we are proud to announce the promotion to Associate Professor and tenure for both Alvin Lebeck and Amin Vahdat (subject to Board of Trustees approval). Alvy has distinguished himself in computer architecture over the years, especially in the efficient design and use of memory hierarchies in computations. Amin has become very well known in the design and analysis of computer networks. In addition to our own hiring, we are very pleased that the Department of Electrical and Computer Engineering has brought in Dan Sorin, a computer architect who has a secondary appointment in our department and is working closely with Alvy.

We are delighted to announce that Professor Carla Ellis has been appointed Editor-in-Chief of the ACM Transactions on Computer Systems. This journal has risen in rank to become one of the most highly regarded in the community.

Our programming team has done it again in the Fall 2002 ACM Mid-Atlantic Regional Programming Contest and won high honors. We had three teams of students entering all of who placed in the top 20 teams. Our best team finished fourth thus qualifying them to go in March to the 27th Annual International Collegiate Programming Contest World Finals in Beverly Hills, California. The world contest brings together winners from six continents and over 1,100 universities in a final shoot-out. This will be their eighth time to compete at the world level in nine years. Congratulations to Professors Owen Astrachan and Susan Rodger and their many student programmers for their achievement.
New faculty member, Carlo Tomas studied computer vision at Carnegie Mellon University, and later taught and conducted research in this field at Cornell, Stanford, and now Duke. Before CMU, he studied electrical communications and information theory in Padova, in his native Italy. Galileo taught mechanics and astronomy in the same city, but he and Carlo never met.

Computer vision is a young discipline, about as young as Carlo himself. It attempts to understand and replicate on a computer some of the achievements of human vision: how to tell near from far, or a building from a tree, and how to guide a hand to grasp a spoon, or a car to take us to the airport.

Carlo's fascination with vision, human and otherwise, has both a conceptual and a practical motivation. Conceptually, vision is one of the most external, and therefore most readily accessible, aspects of intelligence. The retina at the back of our eyes are parts of the brain that during embryonic development project out and away from the rest of gray matter, leaving trails behind them in the form of optical nerves. Effortless as it seems to us, each act of visual perception is in fact a process of complex, intelligent inference. Working on vision algorithms then amounts to making inroads into the understanding of human intelligence.

Practically, and with the help of ever faster and memory-laden computers, computer vision has shown and promises to enable an enormous range of applications. Carlo has sampled several of these, from the automatic diagnosis of colon or lung cancer, to the fast search of images on the Internet, and to the guidance of robot arms or vehicles. In the past two years, Carlo has helped establish Canesta, a California startup company that makes vision-based interfaces for portable electronic devices, and was recently listed as one of Red Herring's ten companies to watch. If one of these years you see Carlo drive a Ferrari, it must mean that Canesta went public.
Each year, U.S. News & World Report calculates new school rankings in five areas—business, education, engineering, law, and medicine—that include the most popular choices for post-baccalaureate study. Their rankings in these areas are based on two broad types of data: expert opinion about program quality and statistical indicators that describe the strength of a school’s faculty, its research, and the performance of students both as they enter and leave. This year Duke Computer Science Department was ranked 20th in the U.S.—an impressive spot among the nation’s most prestigious graduate schools. Duke CS also ranked 16th in Algorithms and Theory.

**Alumni News**

**2002**
- **Brian Hanczaryk** - IBM
  - Hanczaryk was married June 22, 2002 to Katie Fruit, our Assistant to the Directors of Undergraduate Studies.

**2001**
- **Paul Pauca** - Wake Forest University
  - Assistant Professor
  - Pauca has accepted a teaching position at Wake Forest as an Assistant Professor in the Department of Computer Science.

**1999**
- **Adam Brod** - Intralinks
  - Java Developer
  - Brod has made the big move-same place move from San Francisco to Boston.

**Charles Paik**
- Paik was married on June 8, 2002.

**1998**
- **Jennifer Berger Brown**
  - University of Georgia - Law Student
  - Brown was married to Robert Brown on June 26, 2002.

**Henk deGregorio** - OPEX Corporation
- Software Engineer
- DeGregorio has earned a Master of Science in Engineering (Computer and Information Science) from the University of Pennsylvania.

**Joseph Fitzgerald** - American Management Systems
- Fitzgerald ran the Marine Corps Marathon in DC and has started FitnessGiant.com, a Web site that sells fitness equipment.

**Eric Jewart**

**David Raymond** - US Army
- XO, DOT
- Raymond has a new baby boy, Lucas.

**1994**
- **Rajah Chacko** - IBM
  - Chacko has been promoted to Bioengineer at LifeScience.

**Vivek Khera** - Khera Communications, Inc.
- CEO
- Khera's company launched an Internet service for small to medium-sized businesses, MailerMailer.com.

**1993**
- **Ray Houghton** - Cyber Haus
  - CEO
  - Houghton has been selected as a member of a People to People Ambassador. He is a retired college professor and former US government computer scientist.

**Jothy Rosenberg** - GeoTrust, Inc.
- Co-founder, Chief Scientist, and VP Engineering
- Rosenberg's company is in the security business authenticating businesses and displaying their confirmed identity on the Web.

**Pamela Kennedy Fink**
- St. Mary’s University
- Assistant Professor
- Fink recently accepted the position of Assistant Professor of Computer Science at St. Mary’s. She has spent the past 10 years at Southwest Research Institute as a research development specialist in artificial intelligence.

**1992**
- **Michael Redmond** - La Salle University
  - Associate Professor
  - Redmond has achieved the title of Associate Professor at La Salle in the Math and Computer Science Department.

**Faculty News**

**2002**
- **Alvy Lebeck**
  - has been promoted to Associate Professor and received tenure

**2001**
- **Pankaj Agarwal**
  - has been named an ACM Fellow

**1999**
- **Amin Vahdat**
  - has been promoted to Associate Professor and received tenure

**1998**
  - CEO
  - Levine has recently finished the development of coldwellbanker.com.

**1995**
- **Ray Houghton** - Cyber Haus
  - CEO
  - Houghton has been selected as a member of a People to People Ambassador. He is a retired college professor and former US government computer scientist.

**1993**
- **Ray Houghton** - Cyber Haus
  - CEO
  - Houghton has been selected as a member of a People to People Ambassador. He is a retired college professor and former US government computer scientist.

**1992**
- **Michael Redmond** - La Salle University
  - Associate Professor
  - Redmond has achieved the title of Associate Professor at La Salle in the Math and Computer Science Department.
Congratulations to our Summer/Fall 2002 CS Graduates!

Undergraduate Degrees
Jude Al Khalil- 2nd major (AB)
Thomas Cooper Bethea- 1st major (AB)
Robert Broussard Hosea- 1st major (AB)
Archie Ita Otu- 1st major (AB)
Chinmaya Kumar Sahoo- 2nd major (AB)
Ray Hang Tsai- 1st major (BS)
Arthur Oliver Tucker, IV- 2nd major (ECE)
Jennifer Joy Bedell- 1st major (AB)
Tony Gjolaj- 2nd major (AB)
Brian Matthew Goldfarb- 1st major (AB)
Jason Byungil Ko- (Minor)
Tara Marie Kraft- 1st major (AB)
Edmond Frederick Magny- 1st major (AB)
Adam Jerald Mercer- 1st major (AB)
Aara Elizabeth Moore- 1st major (AB)
Andy Ng- 2nd major (ECE)
Graduation with High Distinction
Thomas William Finley- 1st major (BS)

Master's Degrees
Sathish Govindarajan
Advisor: Pankaj Agarwal
Handling Large Spatial Data: Approximation and Data Structures
Nabil Mustafa
Advisor: Pankaj Agarwal
Geometry of Shapes: Simplification, Matching and Analysis
Donald Onyango
Advisor: Owen Astrachan
An Exploratory Evaluation and Comparative Analysis of Educational Graphics Used in Introductory Computer Science Courses

Ph.D. Degrees
Sathish Govindarajan
Advisor: Pankaj Agarwal
Handling Large Spatial Data: Approximation and Data Structures
Nabil Mustafa
Advisor: Pankaj Agarwal
Geometry of Shapes: Simplification, Matching and Analysis
Donald Onyango
Advisor: Owen Astrachan
An Exploratory Evaluation and Comparative Analysis of Educational Graphics Used in Introductory Computer Science Courses

CRA Outstanding Undergraduate Award 2003
Thomas Finley has been selected for Honorable Mention in the Computing Research Association’s Outstanding Undergraduate Award program for 2003.

This year’s nominees were a very impressive group. A number of them were commended for making significant contributions to more than one research project, several were authors or coauthors on multiple papers, others had made presentations at major conferences, and some had produced software artifacts that were in widespread use.

Thomas was cited for demonstrating outstanding research potential in computing research. He worked as an undergraduate research assistant for the project JAWAA, a scripting language for creating animations easily over the Web, and also on the project JFLAP, an educational software tool for creating and simulating several versions of automata. For his work on JFLAP, Thomas was also awarded Graduation with High Distinction by the Computer Science faculty.

Haifeng Yu
Advisor: Amin Vahdat
Wide-Area Replication Using Continuous Consistency: Theory and Practice
Darrell Anderson
Advisor: Jeffrey S. Chase
Virtualized Network Storage
Mithuna Thottethodi
Co-advisors: Alvin Lebeck and Shubhendu S. Mukherjee
Techniques for High Bandwidth, Low Latency Interconnection Network Operation at High Offered Loads
Octavian Procopiuc
Co-advisors: Jeffrey S. Vitter and Lars Arge
Algorithms for Very Large Spatial Databases

Student News

Omer Asad
Advisor: Jeffrey S. Chase
DASH: Dynamic Resource Provisioning Infrastructure for Data Centers
Vijay Abhijit
Advisor: Carla Ellis
Experiences with an In-Building Location Tracking System: UHURA
Nicolea Popoviciu
Advisor: Alan Biermann
Graphics / Spoken Language Processor as a Learning Tool and Dialog Enabler
Parag Palekar
Advisor: Jun Yang
Analysis of an Incremental Algorithm for Mining Frequent Itemsets