Games, Planes, and Algorithms: Computer Science on the Move

MET’s programs in information technology—now entering their twenty-eighth year—were the first programs in computer science offered at Boston University. But the world of IT is not one that allows much time for resting on laurels: it rewards only the most persistent innovation, anticipation, and forward thinking. And with twenty-eight years of expertise serving as a powerful source of momentum, MET’s many IT programs continue to move forward.

Under the leadership of Dr. Lou Chitkushev, chairman of computer science at MET, the Department of Computer Science is busy adding several additional “firsts” to its resume.

For details, browse our series of articles on the latest department news and events ...

Insured for Life:
A Look into the World of Actuarial Science

Sifting through mortality data may not be everyone’s idea of the perfect summer job. But for up-and-coming actuaries like MET graduate student Esther Polevoy (MET ‘08), the opportunity was much too good to pass up.

During the summer of 2007, Polevoy worked as a grant-funded research assistant at MiB Group, Inc., an insurance industry cooperative that specializes in deterring fraud in the underwriting and insurance application process. She is one of several MET students of actuarial science who, since 2004, have contributed to MiB Group’s research initiatives; the organization’s centrality to the life and...
a message from Dean Halfond

OVER THE COURSE OF THE LAST DECADE, METROPOLITAN COLLEGE’S STUDENT POPULATION HAS GROWN BY ABOUT FIFTY PERCENT. Now about one out of every eight students at Boston University is at MET. These numbers only begin to tell the story. MET has been a driving force at BU in creating new modes of learning, new subjects of study, and new audiences to teach. MET’s faculty and staff have formed partnerships with major companies, achieved recognition in emerging new fields, and pioneered online learning that will lead to a virtual, international community of students.

Beyond degree programs, we reach thousands of others across generations—middle school children through environmental education at Sargent Center for Outdoor Education, those changing their careers in their adult years through the Center for Professional Education, and senior citizens through the Evergreen Program. We teach at military, prison, corporate, and overseas sites. We train financial planners, language interpreters, actuaries, arts administrators, wine connoisseurs, and project managers. MET serves greater Boston, while reaching out nationally and internationally to those who can also benefit from our programs. This issue of The Metropolitan provides a brief snapshot of MET in the recent months. As a university-within-a-university, what binds us together is a commitment to teaching students outside of the mainstream, often with tools outside of the mainstream—but all with mainstream academic values of excellence.

While growth has not necessarily been our goal, it does signal our students’ recognition that we provide meaningful education at all stages of their lives and careers. There are few academic enterprises anywhere as exciting and imaginative as MET.

When I visit with alumni, I am often told how important their Boston University education was at key junctures for them. I hope this holds true for you: that MET made a difference in your life.

With my best wishes,

Jay A. Halfond
Dean

METrics

| **49** | Number of U.S. states represented by MET’s online students (every one except for South Dakota!) |
| **23** | Number of countries represented by MET’s online students (including Egypt, Ireland, Venezuela, Bermuda, and China) |
| **50** | Percentage of Metropolitan College students who live outside of metropolitan Boston |
| **90** | Percentage of MET students who would recommend MET to others |
| **13,562** | Number of potential students who inquired into MET degree and certificate programs in the 2006-2007 academic year |
| **1 in 8** | Number of Boston University students who are MET students |
Lieutenant General Keith Alexander (MET ’78), MET alumnus and current Director of the National Security Agency, took a few moments out of his busy schedule to speak with MET about the role of higher education in his extraordinary career. His accomplished service includes a range of leadership and intelligence roles that have taken him to over forty countries, including Eastern Europe during the Cold War and Saudi Arabia during the First Gulf War.

**MET:** What were your motivations for pursuing a military career?
**LTG Alexander:** I actually never had any intention of staying in the military. I thought I would be at West Point to earn my degree and then stay in the Army for five years. But apparently I can’t count, because I’m still here! The people I’ve had the opportunity to work with are just so great that they convinced me to stay.

**MET:** How did you come to earn four master’s degrees in addition to your bachelor’s degree?
**LTG Alexander:** Some of my degrees I earned out of a need in my changing professional roles, others I pursued purely out of interest. As I found myself moving into leadership roles that required budget oversight and resourcing, for example, I thought why not get a business degree? Because I was an intelligence officer, the Army sent me to school to gain the technical background required to serve in electronic systems and warfare. While I was studying, one of my professors noted my undergraduate background in physics and suggested that I earn a double degree. So I took double the courses—39 in just two years. I focused on nuclear physics and semiconductor physics.

The last degree in national security allowed me to put some of these interests together. To study national security, you look at politics, at economics, at how different countries and regions interact. You identify the elements of power—diplomatic, information, military, economic—in order to determine the kinds of crises that can and do arise in specific regions, and in order to determine how these crises impact our country.

**MET:** Are you able to draw upon all of these degrees in your day-to-day challenges?
**LTG Alexander:** Certainly. And I should probably have a couple more degrees in order to do my job even better. On a given day I might go from a very technical basis—for example, what kinds of cryptologic systems can best defend the U.S.—to looking at any given crisis in the world and trying to determine its likely outcomes for Americans. What are the economic and political factors behind the events we read about in the morning news? Business expertise reinforces technological knowledge. It’s my job to ask how we are spending and allocating the resources the nation is giving us.

**MET:** You attended MET in Germany while serving as an intelligence officer during the height of the Cold War. What was your experience like?
**LTG Alexander:** It was great because some of the best Boston University professors came to Europe and Germany to teach. The professors really took an interest in us as students and military personnel. As an intel officer, I was monitoring a number of sensitive issues on the border of East Germany and Czechoslovakia, and my classmates and I wrote a paper on how to conduct operations there. You can imagine that the professor really enjoyed reading that.

**MET:** What do you think is the role of higher education for Americans today?
**LTG Alexander:** One of the things our nation has is great, talented people. The better we educate them, the better we’ll be able to face our challenges. We can see that this is true historically by looking at the phenomenal impact of the G.I. Bill after the Second World War. We must continue to turn to higher education as a resource. It can do tremendous things for our freedom and security.

**MET:** What do you do for fun?
**LTG Alexander:** Well, my job is fun! And I visit my grandchildren as much as I can.
Distinguished Lecture Distinguishes New Program

**DR. IAN LANE DAVIS, FOUNDER AND CEO OF MAD DOC SOFTWARE AND LEADING EXPERT** in the video game industry, delivered a lecture on artificial intelligence to officially launch MET’s new Graduate Certificate in Interactive Multimedia and Game Engineering. Davis, who worked with MET Associate Professor of Computer Science Dr. Eric Braude to develop the program, will also teach courses at MET. The program will introduce students to computer graphics and simulation, animation, advanced graphics, real-time simulation techniques, and artificial intelligence.

“The video game industry is a $30-40 billion a year industry,” said Davis. “It is one of the most cutting-edge areas of computer science. It is where the most aggressive real-time graphics happen, and there is no better place for developing artificial intelligence. Dr. Braude has designed a curriculum that will prepare people to work in this exciting industry.”

Learn more about the Graduate Certificate in Interactive Multimedia and Game Engineering at: www.bu.edu/met/videogames.

Have Computer, Will Travel: The eLive Learning Format

**IMAGINE HOPPING ON A PLANE TO ATTEND CLASS.** The point behind the new eLive learning format, introduced to the BU community by MET’s Department of Computer Science last fall, is that students travel to campus fewer times because they can complete significant amounts of their coursework online. So the means of travel can be a little more—creative—if students prefer.

Yet they do come to campus to interact with their professors and peers. Just ask those enrolled in the eLive Graduate Certificate in Digital Forensics, who meet with faculty members on four Saturdays throughout the semester. Or the students pursuing the eLive Master of Science in Innovation and Technology, who will attend seven on-campus evening sessions when the program launches in the spring of 2008.

“Our eLive students get the best of both worlds,” said Chitkushev. “The online component allows them to complete significant portions of the course from their home location, while the on-campus component gives them an opportunity to meet their peers and their faculty members in person.”

The eLive learning format is an innovative approach to the challenges that many working students face as they attempt to balance the pressures of career and family with their studies. And some students have, in fact, found eLive to warrant a plane ride or two to Boston. “We anticipated enrollments from students who live just outside of a reasonable commuting distance to Boston,” said Chitkushev. “But we have been pleasantly surprised to find that the format has attracted students from as far away as California.”

Learn more about eLive programs at MET by visiting: www.bu.edu/met/eLive.
Welcoming New Faculty

Dr. Dhananjay Kulkarni, one of MET’s two new additions to the Computer Science faculty, may very well be the first salsa-dancing professor in the department. But of course it is his expertise in database query optimization, database security, and information systems that makes him a valuable resource to students. Likewise Dr. Jae Young Lee, whose background in databases and data mining makes him a critical addition to the department’s teaching and research initiatives.

Together, Lee and Kulkarni add depth and sophistication to an already thriving department that is now poised to expand its degree offerings and conduct ever-more sophisticated research. “Professor Kulkarni and Professor Lee will contribute greatly to the introduction of new programs and to the department’s overall development,” said Dr. Lou Chikthushev, chairman of computer science.

Lee, for example, joins MET with nearly ten years of research and teaching experience. As a former assistant professor of computer science at the Colorado School of Mines, Lee’s work in data mining and sequence detection earned him grant funding from defense giant Lockheed Martin. His research, which conceptualizes patterns of motion as mathematical sequences, has profound applications, military and otherwise.

“In a security-sensitive area, we can collect data over time to determine normative patterns of activity,” said Lee. “This allows us subsequently to monitor on a real-time basis to detect unusual, and possibly suspicious, movement.” In other words, Lee can measure patterns of behavior in a given physical environment—a biological cell, a traffic intersection, a military base—and use these patterns to check for meaningful aberrations that affect health, safety, and security.

Kulkarni’s work, which specializes in all things database, also has important applications, particularly in the ever-expanding realm of electronic commerce. If you’ve ever wondered how it is that eBay keeps track of competing bids in real time, or how Yahoo can provide you with a list of the top ten hotels in Boston according to price and proximity to Fenway Park, you may want to stop by his office for a chat. “Databases are becoming more complicated all the time as we ask them to store more elaborate information and to retrieve it faster and faster,” said Kulkarni. “As a result, very interesting questions arise.”

In the realm of online advertising, for example, it has become necessary to determine who it is that actually clicks on those pesky pop-up ads, since advertising rates are often derived on a “per click” basis. It can be altogether too easy for outside parties to inflate the number of clicks an advertisement receives. Just ask Google, since the company recently settled a $90 million lawsuit over its failure to properly monitor the activity on advertisements hosted by the search engine’s site. Kulkarni is at work on algorithms to help companies like Google determine what is and isn’t a valid click.

Students are already enjoying the expertise of both Lee and Kulkarni, who have now completed their first semester of teaching at MET. For Lee, the change has been inspiring. “The students here are so committed,” he observed, “they are a great audience.” For Kulkarni, who just received his Ph.D. from the University of California-Riverside, the transition has been more dramatic. “I’m still getting used to students calling me professor,” he laughed.

Both, however, display a zest for university life and for teaching. “Teaching is a very noble profession,” said Kulkarni. “Contributing to educating is a wonderful way to return the experience others have given you.” Similarly, Lee reflects that, “Since I was very young I’ve wanted to be a teacher. I like the environment, the campus setting, the intellectual stimulation.”

New Jobs, New Programs

According to the U.S. Department of Labor, computer scientist and database administrator are expected to be among the fastest growing occupations over the next decade. An increasing reliance on Web-based technologies and the subsequent challenges to maintaining information security are just two of the factors driving a very promising IT job market. Positioning itself at the forefront of these trends, MET’s Department of Computer Science has developed a range of new specializations, including:

- Cybersecurity
- Digital Forensics
- Information Technology Project Management
- Geographically Distributed Software Development
- Database Systems and Business Intelligence
- Database Security
- Networking Technology

Learn more about computer science at MET by visiting www.bu.edu/met.
healthcare insurance industries in particular makes it a point of convergence for data that, if properly analyzed, can contribute critically to underwriting practices.

By reviewing mortality data from hundreds of insurance companies across the U.S., the effects of smoking and high cholesterol on life expectancy, for example, can be determined, and policy pricing and underwriting criteria adjusted accordingly. Similarly, as medical advances are made, new mortality data can reveal that while certain health conditions once justified higher premiums, they may no longer constitute as great of a risk to policy holders or insurers. While MIB Group does not impose industry standards, its findings frequently serve as benchmarks for industry practices nationwide.

Thus is the work of the actuary, whose expertise in mathematics, statistics, and financial theory serves as a foundation for calculating the probability of essentially uncertain world events, and for measuring the likely financial impact of these events. It is work that Stacy Gill (MET ‘97)—an alumnus of MET’s graduate program in Actuarial Science who currently serves as vice president and chief knowledge officer of MIB Group—has gone out of his way to share with MET’s current aspiring actuaries.

Through Gill’s leadership, MIB Group has committed to funding two research assistants per academic term. “It’s one of the ways I feel I can support MET and the mission of MET in the course of what I do for a living,” he said.

Polevoy’s experience confirms that Gill’s efforts have been worthwhile. “I learned to speak the language of the industry,” said Polevoy. “Tom Rhodes, the actuary who served as my mentor, was really committed to giving me as much exposure to the profession as possible.”

“We take our roles as mentors very seriously,” said Gill, who emphasized the mutual benefits of the research assistantship program. “We contribute to the future of the profession while working with motivated, intelligent individuals who can take an active role in work that is detail-oriented and time consuming.”

One reason that MET’s actuarial science students are able to contribute so effectively in the workplace is that, even while in the classroom, students learn from experienced actuaries. “Our faculty forge links between theory and practice that are very important,” said Lois Horwitz, chair of actuarial science at MET. Horwitz herself, for example, is the former product development actuary of MetLife. “It’s beyond useful when your instructors can walk you through a technique they actually use in their own careers,” said Polevoy.

“It’s beyond useful when your instructors can walk you through a technique they actually use in their own careers.”

— Esther Polevoy, MET graduate student in actuarial science

The sixty-five graduate students currently pursuing the Master of Science in Actuarial Science at MET also enjoy the flexibility of part-time study, which enables them to pursue a highly sought-after degree without halting the progress of their current careers. Gill, who worked for MIB Group throughout his studies, is one of many program graduates who have taken advantage of the part-time option.

Given that the current edition of the Jobs Related Almanac lists actuary as second on its list of the 250 best occupations in the U.S., it is no wonder that MET’s program attracts students from all over the world. According to Horwitz, nearly two-thirds of MET’s actuarial students are international. Together, they represent thirteen countries, and they attest to the worldwide interest in the discipline. And the roster of companies that employs MET graduates attests to the repute of the program. In recent years, alumni have gone on to actuarial careers at firms such as Liberty Mutual, John Hancock, State Street, and Fidelity.

For Polevoy, actuarial science is the perfect venue for applying her undergraduate degree in mathematics and astronomy. “I always knew that I didn’t want to pursue Ph.D.-level math,” she said. “But at the same time, math is my best skill and I love doing it. Actuarial science allows me to use my math skills in a whole range of practical settings.”
Undercover with a High Profile Reporter

IN SEPTEMBER, MET ISSUED CERTIFICATES OF COMPLETION TO A NEW GENERATION OF SLEUTHS—the 15 students who completed the Professional Investigation program offered by the Center for Professional Education. To celebrate the occasion, television reporter and author Jane Velez-Mitchell stopped by to speak about the important relationship between professional investigators and investigative journalists. Velez-Mitchell offered perspectives from her career as an award-winning reporter and former news anchor. Velez-Mitchell currently serves as a correspondent on high-profile court cases for CNN, MSNBC, CourtTV, and Fox News; her most recent book is titled Secrets Can Be Murder.

Learn more about the Certificate in Professional Investigation: www.bu.edu/professional.

BU in Brussels Hosts European Union Dignitary

In October, members of the Brussels community gathered to attend a lecture by Dr. Michael Leigh, director-general for enlargement for the European Commission. The topic: the transformative potential of the European Union, and the benefits of extending stability and democracy across Europe. Frank Billingsley, director of BU Brussels, invited Leigh to share his insights with students, faculty, and interested community members as a guest speaker. Leigh, who studied political science at Oxford and MIT, has served in prominent European governmental roles for thirty years. “It was an honor to have such an esteemed diplomat give of his valuable time to speak to our students,” said Billingsley. “He provided insight into how the policies of the European Union affect world diplomacy.”

Learn more about BU in Brussels: www.bu.edu/brussels.

The Iron Chef on Campus

Fans of television’s the Iron Chef flocked to MET’s teaching kitchen in October to enjoy a live demonstration from one of the show’s stars, Chef Morimoto. Participants enjoyed the culinary creations of the celebrity chef, and took home an autographed copy of his newest cookbook, Morimoto: The Art of Japanese Cooking. The event was organized by MET’s Office of Lifelong Learning and the Consulate General of Japan in Boston.

Learn more about MET’s special food and wine events: www.bu.edu/foodandwine.
used in landmine detection, luggage scanning, and radiation treatment. Or, in Ruane’s words, “Anything that involves looking inside something without opening it up.”

The purpose of Hajare’s project was two-fold: to learn the science behind the technology and to apply it by building a model that Ruane can use to teach future students. “I could take my students down to the hospital and show them a two-million-dollar CAT scanner,” said Ruane. “But all they would see is an expensive medical device. They would gain no sense of what’s actually going on. We wanted to create something based on the same principles, but greatly simplified.”

Six weeks and a few bumps in the road later, Hajare emerged victorious with a colorful machine built from his childhood Lego collection, a few motors, and a laser; now, those building blocks scan objects and generate images in order to measure how much light passes through them. “In the end I thought, wow, I can’t believe I did this! The basis of my project was a failed master’s thesis, and the person who tried this before me never got an image,” Hajare said with a smile and a well-deserved sense of pride.

One of the things Hajare learned is how to respond to the often unpredictable nature of scientific research. “I expected everything to work out as I envisioned it,” said Hajare. “But I found out that when you actually put things together they don’t always work. I had to improvise. I used knitting needles and erasers to hold my machine together!”

“Our students find out that science is a relatively disorganized search for truth,” said Zimmerman. “Very often you don’t discover what you set out to discover.”

“This was very different from anything at school,” said Hajare, “because it was about figuring out how to do something, and not just repeating something that has already been done.”

“We want our students to learn to take intellectual risks with the understanding that it’s okay to try things and make mistakes,” said Ruane. “Most of science is making mistakes.”

Some RIP student projects have received recognition in high-profile science competitions such as the Siemens Competition in Math, Science, and Technology. The research experience can also be a critical factor in the college admissions process.

For Hajare, the program also served to confirm his interests. “Before, I’m not sure I really knew what it meant to be an electrical engineer,” he said. “Now I know that this is definitely what I want to do.”

For all of these reasons, says RIP coordinator, biologist, and Assistant Director of Summer Term Alexandra Adams, efforts are underway to accommodate more students by increasing the number of faculty mentors available during the summer. In 2008, these efforts will include expanding the program to include research opportunities in psychology, as well as placing more students in labs at the BU Medical Campus. “Through this program we have a wonderful opportunity to introduce many students to Boston University and our strong science programs,” said Adams.

Learn more about summer opportunities for high school students at BU: www.bu.edu/summer/highschool.
AN EXHIBITION OF WORKS BY LALIE SCHEWADRON FROM HER RECENT INSTALLATION “HYBRIDS” (Lounge, London, April 2007)

Lalie Schewadron’s (MET ’98) art creates hybrid realities by digitally manipulating medical and nature photography. Her work combines layers of digital images, acrylic painting, wall drawings, and interactive projections.

Schewadron received a Master of Science in Management from MET after studying in both Israel and Boston.

View more of her work at: www.lalies.net.

Evergreen Student Donates Collection of African Art to BU

RETIRÉE BANKER ROBERT WARD—WHO SPENT FORTY YEARS OF HIS CAREER WORKING AND LIVING IN AFRICA, where he pursued economic development in emerging nations—found his way to Boston University as a retiree. The seventy-five year old audited an undergraduate course on Africa and Globalization through MET’s Evergreen Program, which welcomes those over the age of 58 to participate in the activities of the University.

His experience on campus inspired him to donate his extensive collection of African art, and his own records of industrial projects and policies in several African nations, to the Boston University African Presidential Archives and Research Center (APARC).

Learn more about the Evergreen Program at: www.bu.edu/evergreen.

Note: This story was originally reported by BU Today. Read more about Ward’s donation to the Boston University African Presidential Archives and Research Center at www.bu.edu/today.

Robert Ward displays some of the African art he donated to BU.

on display at the MET Gallery

Untitled. Ophthalmic photographs (iris, retina), acrylic, and mixed media on vinyl.
MET Night at Agannis Arena has quickly become a MET tradition, and the past months have featured several very special first-time gatherings as well—including a reunion for alumni of MET’s management programs in Israel. They, along with other BU alumni living in Israel, enjoyed the chance to gather and reminisce. Likewise, alumni back in the U.S. enjoyed a dinner hosted by Daniel Sanders (MET ’91) and his wife Karen Corbett Sanders (MET ’91).
IN OCTOBER, THE PROJECT MANAGEMENT INSTITUTE—THE WORLD’S LEADING MEMBERSHIP ORGANIZATION and the standard bearer for the project management profession—hosted its annual North American Global Conference in Atlanta, Georgia. Thousands of experts from academia and industry gathered to deliver presentations and attend workshops on the most cutting-edge work in the field.

Among those experts were Dean Jay Halfond, Associate Professor of Administrative Sciences Roger Warburton, and Associate Professor of Computer Science and Administrative Sciences and Director of Project Management Programs Vijay Kanabar. While Kanabar and Warburton presented their own research, Dean Halfond spoke about the state of project management in higher education. He addressed MET’s leadership role in developing the discipline as a mainstream academic practice. MET, in fact, is one of just a few universities worldwide that have gained accreditation from PMI for its project management curriculum.

MET alumni were also in attendance to share their expertise, and PMI recognized one in particular for her contributions to the advancement of the project management profession. Dorothy Tiffany, a 2007 graduate of MET’s Master of Science in Project Management, received the PMI Distinguished Contribution Award. In her role as program executive in the office of the chief engineer at NASA and deputy chief of the Advanced Concepts and Foundation Office for Business Management at the Goddard Space Center, Tiffany implemented several strategies for developing strong project teams; she has also co-chaired the NASA Project Management Challenge Conference for four years.

Learn more about project management at MET: www.bu.edu/met/pm.

Notes should be sent to Class Notes, Boston University, One Sherborn Street, Boston, MA 02215, or www.bu.edu/alumni/classnotes. Because space is limited, Class Notes are edited to include as many as possible.

Kudos to...

MET acknowledges the following alumni for their outstanding achievements:

Mary Kennard (CGS ’74, MET ’76), vice president and general counsel of American University, who was named a “Top Washington Lawyer” by the Washington Business Journal.

Cynthia Cohen (MET ’77), founder and president of Strategic Mindshare Foundation, was featured in the journal Directors & Boards as one of 41 Directors to Watch.

Faheem Ahmed (MET ’01) of West Jordan, UT, is working at Ingenix as a quality assurance engineer. He lives in West Jordan with his wife Noreen, daughter Zoha, and son Sulaiman, and would like to be in contact with other BU alums in the Salt Lake City area. E-mail Faheem at faheemahmed@hotmail.com.

Annabel Panopio Bryan (MET ’02) and Andrew Bryan (CAS ’99), of Rocky River, OH, announce the birth of their first child, Ainsley, on April 13, 2007. Contact them at annabel.bryan@gmail.com.

Alan R. Earls (MET ’90) of Franklin, MA, a business and technology journalist, published Watertown Arsenal (Arcadia Publishing, 2007). He has also been a guest curator at the Charles River Museum of Industry in Waltham, MA.

Chris Vento (MET ’87) of Boston, MA, was named executive vice president of technology and product strategy at Experience, Inc., a career services provider for college students and graduates.

Dave Zeltserman (MET ’87) of Needham, MA, recently released a Boston-based crime novel, Bad Thoughts, published by Five Star, a division of Thomson Gale. Additionally, he has three forthcoming novels with UK publisher, Serpent’s Tail; the first of these, Small Crimes, will be available in March 2008. E-mail Dave at Dave.Zeltserman@gmail.com.

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Dorothy Tiffany (MET ’07) holds her PMI Distinguished Contribution Award.
Experience in Experimentation:
High School Research Program Turns 30

Not every high school student spends the summer building a CAT-scanning robot—especially out of Legos.

But that is precisely what high school junior Neel Hajare did last July and August as a participant in BU’s Research Internship Program in Science and Engineering (RIP), which is offered through and administered by the Summer Term office at MET.

Now entering its thirtieth year, the program has a history of nurturing young—and scientifically inclined—minds. "We started this program because we were interested in spreading the love of science," said RIP co-founder and Professor Emeritus George Zimmerman. And part of spreading the love of science is offering students the opportunity to see how it’s really done.

In 2007, Hajare was one of 36 RIP students who joined research labs across the BU campus and worked with faculty mentors on projects in physics, mathematics, biology, chemistry, and engineering. Hajare, who plans to become an electrical engineer, fit right into the Department of Engineering’s High Tech Tools and Toys Laboratory. Under the guidance of Professor Michael Ruane, he constructed a small-scale CAT scanner as part of the lab’s broader interest in subsurface imaging—the technology

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