RICE STUDENT LEADS EFFORT TO HELP THE HOMELESS

Once a month Shaurey Vetsa and about 25 other students gather at a private dining room on the Rice University campus to make 500 peanut butter and jelly sandwiches that they donate to homeless shelters in Houston.

They form an assembly line and with efficiency and camaraderie they complete the task within a couple of hours. They load the sandwiches in a student’s car and deliver them to Sally’s House, SEARCH and Covenant House. If they have any sandwiches left, the students hand them out to the homeless living under freeways.

“I prefer doing that, even though it might be a little bit more risky,” said Vetsa, a junior majoring in bioengineering. “But I like interacting with

Continued on Page 2

RICE UNIVERSITY HELPS CANCER CENTER BUILD LEADERS

The University of Texas MD Anderson Cancer Center is developing leaders in its fight against cancer, thanks, in part, to Rice University.

MD Anderson Cancer Center’s Leadership Institute is partnering with Rice University’s Doerr Institute for New Leaders to offer a program to train MD Anderson employees in how to elevate their capacity to lead.

CoachRICE: A Leadership Coaching Program is training 24 leaders from MD Anderson. CoachRICE provides 60 hours of training toward the International Coaching Federation (ICF) ACC credential from the International Coach Federation, the gold standard in executive coaching. The training program combines academic rigor and evidence-based techniques in a collaborative and inquiry-based environment.

The program supports the philosophy of servant leadership and the MD Anderson Leadership Institute’s Learn, Practice and Apply model of

Continued on Page 6
them. I won’t be changing lives in a fascinating way. I’m just making sure that they are not going hungry at least for a couple of hours.”

Vetsa is co-president of the Rice Coalition on Hunger and Homelessness, a service and advocacy student group that focuses on bringing awareness about the homeless problem in Houston. The other co-president is Kaitlyn Xiong, a junior, majoring in biochemistry and cell biology.

The Rice Coalition was started in 2013 by Ahmed Haque, who was a graduate student at that time, and initiated the Sandwiches for a graduate student at that time, and initiated the Sandwiches for Homelessness Project, Rice students take pictures serving tutoring service at the Covenant House, and the second part of the spring semester, Rice students went to the Covenant House, and the second part of the semester, residents from the Covenant House came to Rice for the tutorials. “We give them tutoring service in whatever they want,” Vetsa said.

Most of the homeless youth are trying to get back to school and need help in preparing for the General Equivalency Diploma (GED), which allows them to graduate from high school. Some need assistance in preparing for the college entrance exam. Many are fleeing abusive family members and seek a safe environment to recuperate and move on with their lives.

Isaiah Bradley has been living at the Covenant House for seven months. Going there was his own choice, he said. “There were so many negative influences in my life. I would have been in jail right now if I hadn’t come here,” he said. “The best way to explain my situation is to say that it’s like a hurricane came through my life and tore up everything, and now it’s time to rebuild.”

To rebuild his life, the 20-year-old plans to be a nurse in the Navy, and to do that he must pass an exam. Vetsa has been tutoring him on mathematics and vocabulary in preparation for the test. “Shaurey is really a reasonable tutor,” he said. “He gives you what you need and expects you to take advantage of the help.”

Stories such as Bradley’s is what Vetsa wants to capture in another program, the Photojournalism Project. In this project, Rice students take pictures of people who have experienced homelessness, interview them and then post the interviews on the Rice Coalition Facebook page in the same fashion as the Humans of New York, which takes pictures of people on the streets and creates a catalogue of the city’s inhabitants.

The purpose of the project is to humanize people who are homeless and give them a voice, Vetsa said. He also wants to dispel the conception that all homeless people are dirty, dangerous and on drugs. “There are some interesting stories about how people became homeless,” he said. “There’s one man, he explained, who used to train horses for the Kentucky Derby and another who was a high school football star but because of unfortunate circumstances both became homeless. “We want to show that things happen, that circumstances are out of their control or that society could have failed them.”

Vetsa has been collecting stories by volunteering at SEARCH, an organization that helps people with a lived experience of homelessness. Vetsa is working with SEARCH’s Coming Home program, which provides a dinner once a week to people who were homeless and are now striving to reestablish their lives in housing. The dinner is a way to provide support and encouragement for people who might be in danger of falling back into homelessness. Once a week, Vetsa eats with the participants, along with other volunteers, and provides them with love and community.

Lisa Levy, program coordinator for Coming Home, said Vetsa and the Rice Coalition are deeply committed to understanding the homelessness issue in Houston. “They are truly passionate about helping others do the same.”

As for the future, Vetsa plans to be a doctor. “As a doctor, I will be able to alleviate complex medical problems for people, especially the urban poor,” he said. “I would like to work with them so that I can remove a burden that they are suffering and let them focus on other aspects of their lives.”

— DAVID D. MEDINA
DIRECTOR
MULTICULTURAL COMMUNITY RELATIONS
PUBLIC AFFAIRS
A CIRCLE THAT ATTRACTS MATHEMATICIANS

What attracted nearly 100 middle school students to Rice University on a Sunday afternoon in February and set the Brockman Hall for Physics abuzz with excitement? Answer: The opportunity to participate in Rice’s Math Circle.

The Rice University Department of Mathematics, together with the Rice University School Mathematics Project (RUSMP), launched the Math Circle at Rice University in September 2012, and it is still going strong.

Rice’s Math Circle is a part of a national organization that unites mathematicians and precollege students who are interested in mathematics. Math Circles create opportunities for stimulating mathematics enrichment, while providing faculty a chance to do outreach. Students meet with mathematicians in informal settings to work on challenging problems or explore topics in mathematics that receive little or no attention in precollege mathematics classes. The goal is to inspire precollege students to explore rigorous mathematics.

This year’s Math Circle was designed for Houston-area middle school students. Students met on selected Sundays from 1 to 3 p.m. on the Rice campus. At one Sunday meeting, Allison Miller, the G.C. Evans Instructor in the Department of Mathematics at Rice, guided students in exploring knots. Miller teaches an undergraduate math course at Rice on knot theory and thought it would be fun to bring the topic to younger students to explore, and she wasn’t wrong. Charlie Burrus and Ralph Polley, National Science Foundation Robert Noyce Fellows (Grant No. 1556006), assisted with the group along with Rice University Department of Mathematics graduate students Xian Dai and Connor Sell, and

“I see outreach activities, such as Math Circle, as vital to our mission of raising mathematical awareness and literacy in the community, and especially among girls and traditionally underrepresented minorities in mathematics.”
— ALAN REID

Anne Papakonstantinou, RUSMP director.
Chair of the Department of Mathematics, Alan Reid, said: “I see outreach activities, such as Math Circle, as vital to our mission of raising mathematical awareness and literacy in the community, and especially among girls and traditionally underrepresented minorities in mathematics. Hopefully such events can spark the imagination of students to continue to think about mathematics, consider being a math major in the future and consider careers that have strong mathematical backgrounds.”

The middle school students who attended represented more than 20 middle schools in the Greater Houston area. For those interested in learning more about Rice’s Math Circle, please visit the website at https://math.rice.edu/Outreach/MathCircle/index.html.

— ANNE PAPAKONSTANTINOU
DIRECTOR
RICE UNIVERSITY SCHOOL MATHEMATICS PROJECT
HELPING YOUNG BLACK MALE STUDENTS

The Black Male Leadership Initiative at Rice University has started a mentoring program to help young black male students increase their confidence, encourage them to pursue a STEM career and teach them about positive models of masculinity.

“School-age black male students are subject to higher suspension rates, school expulsions and placement into special education classrooms more than any other subgroup of students in public education,” said William Edmond, assistant director in Multicultural Affairs at Rice and adviser to the group. “These disparities present an opportunity for mentorship of young men in our local community.”

Under the leadership of graduate student Lawrence Cimino and junior Noah Mengisteab, the group has created a mentoring program at Longfellow Elementary School. The program, Preparing Responsible Individuals Dedicated to Education (PRIDE), aims to build strong-minded students who are passionate about education. One of the goals of the program is to increase classroom engagement and decrease negative behavior at Longfellow Elementary.

The program has three components. The first is to build confident young boys by teaching them about self-awareness and interpersonal relationships so that they can foster a strong sense of self-efficacy. Houston Independent School District uses a curriculum centered on restorative justice to allow students an opportunity to reflect on what is happening in their lives.

The second component is to introduce young black male students to STEM education and career options through grade-appropriate science projects that stimulate their minds. For this purpose, the group uses a monthly subscription from Tinker Crate with different experiments ranging from disk launchers to vacuum chambers.

The third part explores the positive norms of masculinity by having students explore and critique representations of young boys and men in their lives. Using the documentary “The Mask You Live In,” the group organizes activities for students to examine how they have been unconsciously socialized to masculinity.

In addition to the mentoring sessions, the Black Male Leadership Initiative hosted almost 200 students from Longfellow for a College Preview Day at Rice. The students toured...
the campus and got to see the Rice Memorial Center, Fondren Library, Tudor Fieldhouse, residential colleges and Lovett Hall, among other buildings. Students ate lunch with college students and asked questions about the day-to-day life of a college student. The day included a panel discussion in which college students emphasized the importance of making good decisions and how decisions can affect you later in life. Garland Spiller, the school counselor at Longfellow Elementary, said, “Thank you for helping our kids have a wonderful and memorable experience that many of them will remember for the rest of their lives.”

THE LEADER IN YOU: Black male students at Rice give back to the communities of Houston by helping young black male students reach their leadership potential.
development in which leaders practice on the job what they have learned. MD Anderson leaders who graduate from CoachRICE will provide coaching throughout the institution with approximately three engagements a year.

The program started this winter and feedback from participants has been extremely positive with leaders citing their gratitude for the opportunity to be in the course and the strong foundation of coaching skills they are acquiring.

“The program marries great content, multiple opportunities to practice and observe coaching and time to reflect, all under the guidance of engaging and knowledgeable faculty,” said Ara Vaporciyan, a participant of the program and chair of MD Anderson’s Department of Thoracic and Cardiovascular Surgery. “It also provides the opportunity for building one’s own leadership skills. I am already using many of the skills I am learning to not just coach but to be more mindful and self-aware as I engage with my faculty and staff.”

Moving forward, two cohorts of CoachRICE will be offered to MD Anderson leaders every year. Through this program, MD Anderson intends to amplify a coaching culture within the institution, while simultaneously saving the institution hundreds of thousands of training dollars over time. MD Anderson is selecting participants for their business acumen, interpersonal skills and professionalism. The program addresses the various challenges of leaders, the methodology that supports change and development, and the impact of coaching leaders, both personally and professionally.

“I am impressed with the dedication and sacrifice these leaders have made to develop themselves and invest in others,” said Ruth Reitmeier, director of training for CoachRICE and assistant director of coaching at the Doerr Institute. “We believe that this partnership can have a powerful impact on workplace culture and that the trickle down effects of these changes can be widespread and long lasting.”

Tom Kolditz, executive director of the Doerr Institute, added, “We treasure our association with the Leadership Institute at MD Anderson — a group of consummate professionals.”

The University of Texas MD Anderson Cancer Center is devoted exclusively to cancer patient care, research, education and prevention. Its mission is to eliminate cancer in Texas, the nation and the world through outstanding programs that integrate patient care, research and prevention, and through education for undergraduate and graduate students, trainees, professionals, employees and the public. For more information, visit mdanderson.org.

The Doerr Institute for New Leaders at Rice University is a leader development enterprise that was launched in 2015 to elevate the capacity of Rice students to lead. To learn more about Doerr and our programs for the community, visit https://doerrinstitute.rice.edu/.

— COURTNEY HOLLADAY
EXECUTIVE DIRECTOR
LEADERSHIP INSTITUTE
MD ANDERSON
RICE STUDENTS LEARN THROUGH JOB SHADOWING

During winter and spring breaks this year, about 300 Rice University students participated in job-shadowing opportunities through the Owl Edge Externship Program, managed by the Center for Career Development (CCD).

These externships, which last from one to five days, covered a wide variety of industry clusters, from global organizations to hospitals and schools, local nonprofits, public policy and architecture.

Although the majority of externships are concentrated in Texas, externs completed experiences across the country and world. This is the power of the Rice community: alumni, parents and friends of the university who opened the doors of their workplace to allow a student to explore a job function, organization or industry.

Externships aren’t “take your child to work day.” Students don’t expect nor do they want to look over shoulders at computer screens. Instead, externs tour an organization, attend meetings with hosts, shadow visits with clients and even work on small projects. Students have a chance to ask their host questions and seek advice about careers through the informational interview, the one constant in every externship experience.

Rice is the element that binds this experience. Whether the host spends time on campus as a student, a parent or as a member of the Houston community, Rice is at the core of this experience.

Having completed its fifth year, the CCD understands this program is now embedded in the Rice experience. Seniors have always had access to externships. A former head peer career adviser has taken advantage of five externships during her time at Rice and each experience influenced career decision-making.

Not all students walk away with a career or major academic pivot. During orientation, students learn they should find equal value in an externship when they leave thinking it reinforced a potential career path or if the experience eliminates an interest. These short-term externships have lasting power — building a professional network is one perk, and the CCD urges students to keep in touch with their hosts.

Recently, an on-campus host from OpenStax said, “I love doing this every year. I try to get my colleagues to participate too if they can. I think it’s incredibly beneficial for students to have this experience.”

The CCD appreciates hosts who participate each session and welcomes new hosts and former externs who are now professionals to register. Learn more at https://ccd.rice.edu/employers/externships.

“So these kinds of experiences, where the CCD is able to connect you with people that are in the fields that you might want to go into, allows you to really explore and understand.”

— SHIKHA AVANCHA ’19

“If it weren’t for the externships that I did through the CCD, I would have no idea that I didn’t want to go into research,” said Shikha Avancha ’19. “So these kinds of experiences, where the CCD is able to connect you with people that are in the fields that you might want to go into, allows you to really explore and understand.”

Not all students walk away with a career or major academic pivot. During orientation, students learn they should find equal value in an externship when they leave thinking it reinforced a potential career path or if the experience eliminates an interest. These short-term externships have lasting power — building a professional network is one perk, and the CCD urges students to keep in touch with their hosts.

Recently, an on-campus host from OpenStax said, “I love doing this every year. I try to get my colleagues to participate too if they can. I think it’s incredibly beneficial for students to have this experience.”

The CCD appreciates hosts who participate each session and welcomes new hosts and former externs who are now professionals to register. Learn more at https://ccd.rice.edu/employers/externships.

RICE OFFERS FREE NANOACADEMIES FOR LOCAL STUDENTS

What do a bouncy ball factory, a nanopolymer iPhone case, a pollution solution laboratory and a glow show have in common? They were all part of the 2019 Saturday NanoAcademies at Rice University, where students from all over the Houston metropolitan area had the opportunity to participate in innovative hands-on experiences hosted by the Rice Office of STEM Engagement.

The sessions themselves were led by elementary and secondary school teachers who had spent last summer in research internships in Rice University’s laboratories as part of a Research Experience for Teachers funded by the National Science Foundation. As part of their internship, teachers developed new lessons related to their research and were able to pilot these new nanotechnology-based learning experiences with the Saturday NanoAcademy students. The lessons are designed to encourage students to participate in activities that bridge their home, school and community experiences and provide teachers with an informal space to test and refine their lessons.

On Feb. 9 and Feb. 16, about 200 elementary, middle and high school students participated in six hands-on activities at Rice University’s Biosciences Research Collaborative. Fifth to 12th grade students, along with teachers from schools including Westbury High, Hogg Middle, Roberts Elementary and Dobie High, attended the program. While the students worked in small groups of three to five students for each activity, the NanoAcademy teachers alternated activities within the classroom for the day. All classroom activities were developed in collaboration with R-STEM.

— ISAIAS CERDA
ASSISTANT DIRECTOR FOR SCIENCE EDUCATION
RICE OFFICE OF STEM ENGAGEMENT

— CAROLYN NICHOL
DIRECTOR, RICE OFFICE OF STEM ENGAGEMENT
ASSISTANT RESEARCH PROFESSOR
DEPARTMENT OF CHEMISTRY

GLOW SHOW:
Students learn how glow in the dark particles can serve other purposes and how to solve water pollution.

— MICHELLE PASSO
EXPERIENTIAL EDUCATION PROGRAM MANAGER

S P R I N G  2 0 1 9  7
Rice University has launched a laboratory where students work directly with external organizations to turn data into knowledge that can be used to solve real-world challenges.

Recent advances in technology allow for the collection and storage of massive amounts of data. Widespread availability of software has made it possible to perform advanced analytics with the push of a button. However, widespread availability of data and software does not mean that the value of data is automatically captured. The critical element is people.

"Data is everywhere, in seemingly endless varieties and massive quantities, but there’s a critical shortage of people who are trained to turn data into actionable, useful knowledge," said Genevera Allen, associate professor and founding director of the Center for Transforming Data to Knowledge (D2K Lab). The key is to connect Rice students with people who have data challenges. Our students will not only gain invaluable experience and unique learning opportunities, they’ll also make an impact by solving real-world data science problems."

The D2K Lab offers two courses for about 40 students and plans to expand within five years to serve up to 300 students and 100 on- and off-campus clients a year.

The lab provides courses, co-curricular programs and events focused on linking students with people who need help interpreting their data. In each of the lab’s marquee courses, for example, Rice students work in teams to solve real problems brought in by clients. These people could be Rice researchers from any discipline across campus, Texas Medical Center researchers or medical professionals, community partners such as government agencies and nonprofits, as well as companies.

― JADE BOYD
SCIENCE EDITOR
PUBLIC AFFAIRS
The Rice University School Mathematics Project (RUSMP) celebrated Black History month at its annual Spring Networking Conference by honoring African American mathematician and scientist Benjamin Banneker at Milby High School.


Benjamin Banneker (1731–1806) was known for his work in many scientific disciplines, all of them self-taught. His accomplishments included creating a clock made completely of wood, assisting in the surveying of the District of Columbia and creating a series of mathematical puzzles that have intrigued students for years.

Milby art students honored Banneker by studying his life and creating artwork based on his scientific accomplishments. The artworks were displayed at the conference, and attendees voted for their favorite piece of art. In addition, Patricia McMorris, the Milby math chair and National Science Foundation (NSF) Noyce Fellow, selected junior and senior Milby student ambassadors from the National Honor Society to assist with the conference setup, direct attendees to various locations on campus and assist the keynote speaker.

After the keynote presentation, there were 12 breakout sessions led by fellows from Rice University’s National Science Foundation Robert Noyce Master Teaching Fellowship Program (Grant No 1556006). The sessions offered a variety of content and pedagogical topics, including how to develop a classroom website, how to use screen casting in instruction, how to integrate GeoGebra to develop visually rich interesting lessons and how to make historical connections in geometry. Material in the presentations was based on work supported by the NSF.

The conference was a tremendous success. One attendee stressed the importance of conferences such as this one: “I enjoy the opportunity to engage with other educators in meaningful ways. Both the keynote presentation and the breakout sessions provided me with ideas that I can immediately use in my classroom.”

“I enjoy the opportunity to engage with other educators in meaningful ways. Both the keynote presentation and the breakout sessions provided me with ideas that I can immediately use in my classroom.”

— RICHARD PARR
EXECUTIVE DIRECTOR
RICE UNIVERSITY
SCHOOL MATHEMATICS PROJECT
Can you make LEDs light up with Play-Doh and a battery? Can you see the difference between nano-sized particles and macro particles in sunscreen? Is levitation really possible? Can you make a bracelet to tell you when you need to apply sunscreen?

All these ideas have been explored by the Rice Office of STEM Engagement (R-STEM) team during the Houston Museum of Natural Science’s annual programs. For the last 13 years in February, the museum has hosted the Girls Exploring Math and Science (GEMS) program at Rice with the Girl Scouts of San Jacinto Council. The event takes place in the Grand Hall of the Rice Memorial Center, which fills up with community organizations, including R-STEM, to present STEM activities and demonstrations to visitors.

In addition, the museum invites student groups to present projects relating to science, technology, engineering and math. The students create projects on topics like robotics, genetically modified organisms, renewable energy and biomimicry for the chance to win prize money to use for STEM programming or supplies.

This February, the winning group measured how well certain materials could block electromagnetic fields coming from cell phones and tablets. Their prize was $1,000, and they plan to use it for a trip to the Hill Country over the summer to look at indigenous plants and visit the state capital.

In the fall, the museum also offers STEM/Nova Day for Scouts BSA and Cub Scouts. One Saturday morning, the scouts are the first ones to arrive at the event, where the Grand Hall is transformed into hands-on science, technology, engineering and math exhibits of every kind. Scouts explore and ask questions of the STEM professionals to increase their knowledge of the STEM fields. For both of these annual programs, community members may attend the community booths for free.

R-STEM has been part of STEM/Nova Day and GEMS by hosting community booths with hands-on activities, such as creating hot and cold packs, interacting with UV light via UV-activated beads, exploring nanoparticles in sunscreen and creating electrical circuits using Play-Doh. Local school teachers and graduate students at Rice help as volunteers at the R-STEM booth. R-STEM has coordinated further participation with Rice student groups, including Women in STEM and Nano Owls, and with Emilia Morosan, an associate professor of physics and astronomy, chemistry and material science and nanoengineering.

Over the past few years, these two community events have grown tremendously. With community organizations such as R-STEM, these events will continue to engage with Houston-area students and their families to increase their interest in STEM subjects and perhaps pursue a career in the field. The next STEM/Nova Day will be Saturday, Sept. 21, 2019.

— CARRIE OBENLAND OWENS
ASSOCIATE DIRECTOR FOR OUTREACH AND RESEARCH
RICE OFFICE OF STEM ENGAGEMENT

— KELSEY FRIEDMANN
ASSISTANT DIRECTOR
YOUTH EDUCATION
HOUSTON MUSEUM OF NATURAL SCIENCE
A GOLDEN MOMENT FOR PUBLIC AFFAIRS

Multicultural Community Relations in the Office of Public Affairs won two gold awards in the Council for Advancement and Support of Education (CASE) Region IV 2019 Accolades competition.

The “Blacks at Rice: An Evolving Legacy” exhibition won in the institutional opportunity and inclusion program category. The award was the result of the collaborative effort between the Association of Rice University Black Alumni (ARUBA) and Multicultural Community Relations (MCR).

“The exhibit captured the stories of black staff and students at the university across the decades,” said Monique Shankle, chairperson of ARUBA. “We wanted to open up black life behind the hedges to the community, the current students, alumni and staff. ARUBA is honored that the exhibit and our story were recognized with an award from CASE.”

MCR’s newsletter, Rice At Large, won the gold award for outstanding work in the newsletter category of the regional CASE competition. Rice At Large is a quarterly newsletter that showcases the university’s outreach programs. Each issue of the newsletter contains a series of stories that raise the awareness of Rice’s engagement with the city and beyond.

In addition to CASE’s recognition, the “Blacks at Rice” exhibition received 6,000 visitors at the African American Library at the Gregory School, where it was displayed. The success of the exhibition was due, in part, to the staff of the Gregory library, Rice’s Woodson Research Center and the Association of Rice Alumni.

CASE District IV represents almost 3,000 members from 261 collegiate institutions in Arkansas, Louisiana, New Mexico, Oklahoma and Texas. This annual award program recognizes its members for excellent work in the areas of alumni relations, communications and philanthropy.

— JAN WEST
ASSISTANT DIRECTOR
MULTICULTURAL COMMUNITY RELATIONS
PUBLIC AFFAIRS
IN THIS ISSUE:

- Rice Student Leads Effort to Help the Homeless  
  Page 1
- Rice University Helps Cancer Center Build Leaders  
  Page 1
- A Circle that Attracts Mathematicians  
  Page 3
- Helping Young Black Male Students  
  Page 4
- Rice Students Learn Through Job Shadowing  
  Page 7
- Rice Offers Free NanoAcademies for Local Students  
  Page 7
- Helping the Community Interpret Data  
  Page 8
- Mathematicians Celebrate at Black History Month Event  
  Page 9
- Rice and Houston Museum of Natural Science Team Up for STEM  
  Page 10
- A Golden Moment for Public Affairs  
  Page 11

RICE AT LARGE is a quarterly newsletter that showcases the university’s outreach programs. Each issue of the newsletter includes a series of stories that raise the awareness of Rice’s engagement with the city and beyond. Rice At Large has a circulation of 2,500 and is sent to members of the Rice and Houston communities, including alumni, educators, business and political leaders, program funders and others with whom the university would like to engage.