# UMSL
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# ALUMNI NEWSLETTER

**SUMMER 2018**
**MATHEMATICS & COMPUTER SCIENCE**
**UNIVERSITY OF MISSOURI – ST. LOUIS**

## LETTER FROM THE CHAIR

Welcome to the latest issue of the Alumni Newsletter. There are many exciting changes happening in the department. Over the last few years we have made many changes in the department with new faculty and staff, please view their profiles in a separate section of the Newsletter. We also have made changes to our programs, and we are focusing more on funded research. These are exciting times for anyone working in Math or Computer Science, and we are here to make those dreams and aspirations come true for our students, both fresh HS graduates but also non-traditional students often looking for new careers.

Personnel changes also include Kimberly Stanger being promoted to Business Support Specialist II and Hannah Shapiro joining the department as an Office Support Assistant III. Despite overall cuts, we have also grown by one GTA position. We currently are interviewing for two positions in Computer Science.

Two years ago we received DHS/NSA designation for excellence in cyber education for our joint cybersecurity certificates, as only the second university in Missouri.

While Math course enrollments went down over the past few years, following university-wide drop in enrollments, about a year ago CS enrollments passed 1000 registered students per semester for the first time.

In Math, we introduced two new emphasis areas in the BS program: fiscal mathematics, and data science. Data science has also been added as an option to the MA in Math program. These additions are mostly outgrowths of the data science certificate introduced a few years back that we have recently separated into computational and statistical tracks. All these changes are still awaiting state approval. Separately, we are starting jointly with Economics a new undergraduate degree program: Actuarial Science, already approved.

In Computer Science, we are still awaiting state approval for a new BS degree in Computing Technology, which trades some Math and upper level CS core courses for more technology oriented courses, for example it requires .NET course. We are also working on a new degree program in cybersecurity, collaborating with the Information Systems department. We also established an advisory council, populated with our alumni

(with one exception), to guide and advise us about our CS programs and education.

In both Math and CS we have introduced, or are introducing, many new courses: in Math mostly courses in data science and statistics, and in CS mostly in data science, AI, networking and security.

Over the last few years, as the university went through budgetary cuts and corresponding reductions in support for faculty and programs, we have expanded our focus and internal support for funded research. This has led to increases in external funding from $14k two years ago, to $154k a year ago, to $560k this year.



Sanjiv Bhatia, Jian-Li Pan and Cezary Janikow with officials from Arts and Sciences, and Business, at discussions of the Cyber Security program.

Finally, we hope to hear more from you, and hope to see you during our annual events for alumni. If you have any ideas, suggestions, questions, or if anyone wants to come back and teach either lower level course or possibly some cool topics you are working in, email me at janikowc@umsl.edu.

Cezary Janikow
Chair, Mathematics and Computer Science

# NEW FACULTY

We have lost some of our faculty and staff to retirement and some to other opportunities. Best wishes to Galina Piatnitskaia, Michael Schulte and Alice Canavan, we will miss you. Best of luck to Antonio Cardenas at Cal State, Bakersfield.

The Department has added a number of new faculty members in the last couple of years. Our roving journalist, Qiang Dotzel, talked to them about their backgrounds and how they are fitting into UM-St.Louis.

Meet Dr.Badhri Adhikari and Dr. Sharlee Climer, both Assistant Professors in Computer Science,  Dr. Mark Hauschild, Teaching Assistant Professor in Computer Science, Dr. Gary Hu, Dr. Ilgin Sager and Dr. James Smith, all Teaching Assistant Professors in Mathematics. In addition, Hannah Shapiro has joined us as an office staff person.

# MEET BADRI ADHIKARI

Badri Adhikari is originally from Nepal. In 2009, he earned his Bachelor's degree in Computer Engineering from Tribhuvan University, worked in the software industry for two years after graduation, and then came to the United States to further pursue his education. He attended the University of Missouri- Columbia earning a Ph.D. (2017) in Computer Science. His current research interests are deep learning and structural bioinformatics.

Outside of his research, Badri is married with Nilima and they have a two year old child. For fun he enjoys watching action movies and he enjoys staying connected with friends. When asked what his favorite thing was about UMSL, he replied, "The stir-fry at MSC and Early Career Research Network (ECRN) – a recent initiative at UMSL to mentor and help new faculties in their research career". We are delighted to have him as a new member of our department, and we are enjoying working with him.

# MEET SHARLEE CLIMER

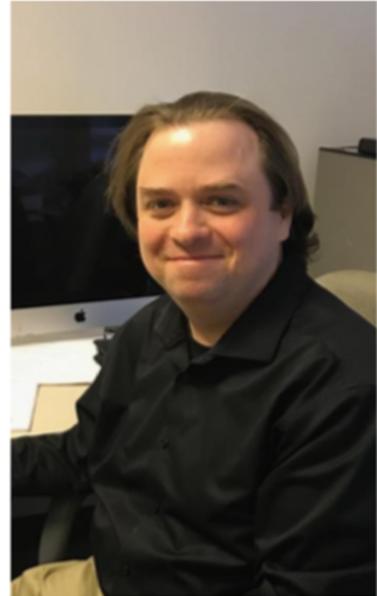Born and raised in St. Louis, Sharlee Climer earned her Bachelor of Science and Master of Science degrees in Computer Science from UMSL in 1999and 2001, respectively. She then attended Washington University in St. Louis, earning a Ph.D.in Computer Science, followed by a postdoc at Washington University's School of Medicine. She worked as a Research Assistant Professor at Washington University for six years before returning to UMSL as an Assistant Professor in the Department of Mathematics and Computer Science in 2016. Sharlee's research includes Artificial Intelligence and Operations Research, with applications in Computational Biology. She develops tools for identifying patterns in large genetic datasets and tests for associations between these patterns and complex traits of interest, such as Alzheimer's disease.

Outside of her research, Sharlee is married with five grown children. She enjoys spending time with her family and grandchildren. When asked what her favorite thing was about UMSL, she replied, "The students. They are highly diverse and truly remarkable". We are fortunate to have her as a new member of our department.

# MEET MARK HAUSCHILD

Born and raised in Missouri, Mark Hauschild earned a Bachelor of Science in Computer Science from University of Missouri-St. Louis, in 2005 and earned a Bachelor of Science in Mathematics there in 2006. In 2008 he earned a Master's degree at UMSL in Computer Science and in 2013 a Ph.D. in Applied Mathematics with an emphasis in Computer Science. Mark is specialized in Evolutionary Computation and Artificial Intelligence and enjoys working with students. He also helps organize the Computing Club.
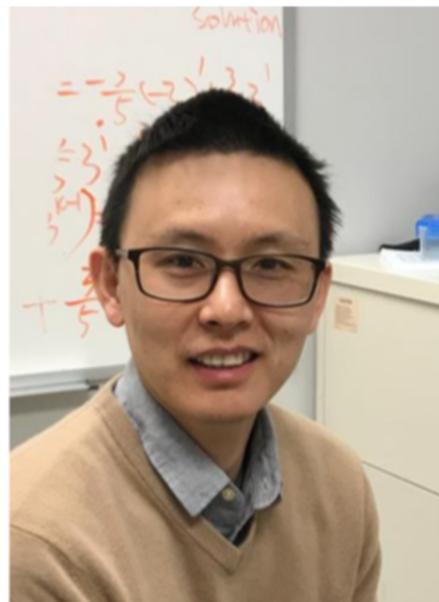
Outside of his classroom, Mark enjoys going on adventures with his dog Pharaoh and computer gaming. When asked what his favorite thing was about UMSL, he replied, "Seeing so many diverse students graduate and get good jobs". We are grateful to have him as a new member of our department.
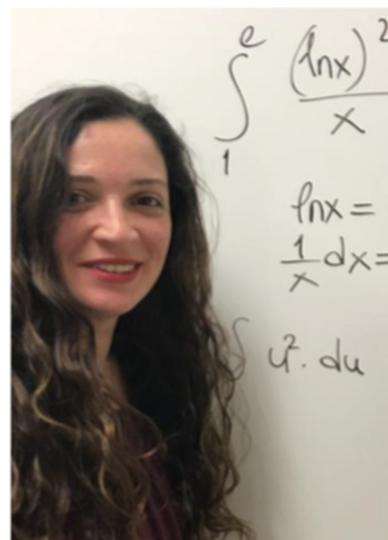
# MEET GARY HU

Guannan (Gary) Hu is originally from China. In 2002, he earned his B.S. in Math Education from Zhumadian teacher's Junior College, and he earned his Master degree from Sichuan University earning (2010) in Set Theoretic Topology . He then came to the United States to further pursue his education. He earned his Ph.D. from University of Kansas (2015) in Probability. Gary is specialized in Probability. Gary enjoys teaching various undergraduate courses in his first two years at UMSL.

Outside of his classroom, Gary enjoys Classical Music and History. When asked what his favorite things were about UMSL, he replied, "The students are highly motivated and the department is like a big family". We are very pleased to have him as a new member of our department.
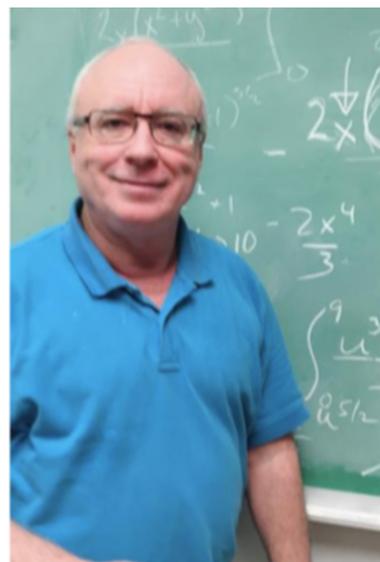
# MEET ILGIN SAGER

Ilgin Sager is originally from Turkey. She earned her Bachelor of Science degree in 2002, in Mathematics from Ankara University, Turkey. She continued her academic development in the same university, earning a Master's degree 2005, and a Ph.D. 2015, both in Mathematics. She came to the United States in 2011. Ilgin has specialized in Differential Geometry, symplectic spaces and optimization problems. Ilgin enjoys teaching a varietyof courses to students with different cultures and academic background.



Outside of her classroom, Ilgin is married to Dr. Martin Bohner and has 2 children age of 2 and 5. She enjoys cooking, reading and playing with her daughters. When asked what her favorite thing was about UMSL, she replied, "privileged education for a privileged future". We are thrilled to have her as a new member of our department.

# MEET JAMES SMITH

Born and raised in St. Louis MO, James (Jim) Smith earned his Bachelor of Science degree in Mathematics from Washington University in 1972 and subsequently a Bachelor of Science in Nursing from St. Louis University in 1975. After two careers (one in Nursing and the other in government service), Jim then returned to Mathematics. He attended UMSL, earning a Master's degree in Mathematics in 2006, and a Ph.D. in Applied Mathematics in 2011. After 2 years being a Visiting Professor here, Jim is with us and continues to enjoy teaching various undergraduate courses.



Outside of the classroom, Jim enjoys eating ethnic foods and travelling to exotic places (having been to Machu Picchu). Also he is a self-described "crazy cat person." When asked what his favorite thing is about UMSL, he replied, "I really enjoy working with the students and helping some of them overcome a fear of mathematics. Also the faculty and staff in our department are a great group to work with." Jim has been and we are sure, will continue to be, a very cheerful and inspiring member of our department.

## MEET OUR NEWEST STAFF MEMBER HANNAH SHAPIRO

Born and raised in Texas , Hannah began her career with UMSL as a student professional. She then worked for the Children's Advocacy Center of Greater St. Louis, where she handled administrative and financial tasks. She joined our department in March 2018 as an Office Assistant, handling various administrative tasks.

Away from her office, Hannah enjoys hiking and being outdoors. When asked what her favorite thing was about UMSL, she replied, "the supportive atmosphere." We are grateful to have her support as we work together serving the needs of the department.



## KIMBERLY STANGER, NEW OFFICE MANAGER

After several personnel changes in the Department Office, Kimberly Stanger is now the Office Manager, in which position she will doubtless do all the work in the department as she has always done. Here she is in May 2017, when she and Mark Hauschild received our 2017 Departmental Internal Awards in recognition of their outstanding dedication and service to the department.



## WENJIE HE IS MATH CO-CHAIR

Professor Wenjie He has been serving as the Math Co-Chair in the department. Here, he and Express Scripts' Mike Shoemaker supervise students working on a collaborative project between UMSL and the company, in a Web Development course taught by Professor He.

# NEWS ON PROGRAMS

**Undergraduate Computer Science**    Professor Climer is the Coordinator for Undergraduate CS Studies. She reports on recent developments.

The undergraduate Computer Science program has seen many changes since the publication of the last newsletter. As soon as we have CBHE approval, we will add a new degree program: Bachelor of Science in Computing Technology. This degree favors exposure to a wide variety of tools and technologies over traditional depth or thorough computer science background.

We have also added a Certificate in Data Science and Certificate in Computer Programming. These certificates, as well as our three other certificates, require a total of six courses and many students are taking the opportunity to earn a certificate while completing their Bachelor's degrees. Our certificates also attract students from other disciplines and working professionals. For example, the Certificate in Computer Programming provides a quick, yet broad training in technologies leading to secure and interesting careers in technology or education. In order to allow as much flexibility as possible for our increasingly diverse student goals, we've examined the prerequisites of our courses with an aim to reduce unnecessary prerequisites.

We've also added many exciting new courses, including Video Game Design, Cyber Threats and Defense, Client-Side Technologies, Intro to Evolutionary Computing, Intro to Biological Data Science, and Intro to Security of Internet of Things Systems.

The department is also facilitating an increasing number of student activities. Our annual Programming Competition has been well-attended and a number of students have received merited awards. The Computer Club is flourishing with ongoing projects and a growing number of students compete in hackathons locally and nationally. We recently started a well-received new organization, women.can (can is an acronym for computers and networks), that is aimed at improving recruitment and retention of women in the program.

Overall, the undergraduate Computer Science program has been bustling with many changes, providing an ever increasing number of opportunities for our current and prospective new students.

**Undergraduate Mathematics**    Professsor Ron Dotzel heads Undergraduate Math Studies. He writes:

Undergraduate Mathematics at UMSL.

As you know we offer an array of degree programs in mathematics at UMSL. For the student interested in continuing on to graduate study, our BA and BS degrees in mathematics serve well to prepare the student for further study and offer a strong base upon which to continue.  The BS in mathematics can also provide thorough preparation towards a career in applied mathematics, given our assortment of elective courses. Our BA/BS and MA dual degree program can accelerate students into graduate study by

carefully incorporating undergraduate study into selective graduate course work. We also offer minors in statistics and mathematics which many students from outside our department find very useful. In addition, our department sponsors certificate programs in data science and in actuarial studies. The latter certificate provides sufficient preparation for the first two professional actuarial exams offered by the Society of Actuaries (SOA). More information on this important career choice can be found on their website (www.soa.org).

We have several new degree options pending final approval. These are a BS in Mathematics with Emphasis in Data Science and a BS in Mathematics with Emphasis in Fiscal Mathematics. These degree programs will be very valuable in providing a more direct career path in the exploding fields of data science and financial mathematics and financial management.

We are also pleased to announce the offering of a new interdisciplinary degree, partnering with the Department of Economics and the Department of Finance and Legal Studies in the School of Business Administration. This new degree is a BS in Actuarial Science and will serve those students who wish to follow a dedicated career path supported by a very strong university education including mathematics, economics and finance.

It is our great honor and privilege to be able to prepare and encourage our students as they plan for a lifetime of learning and a lifetime of career challenges.

## Graduate Studies

Professors Qingtang Jiang and Sanjiv Bhatia are directors for graduate studies, in math and CS respectively. They report on what's been happening.

In the past few years our Ph.D. program has been growing to over 20 Ph.D. students. Two students obtained their Ph.D. degree last year and one student is planning to graduate this spring. The math master's program is going to add the Data Science option, pending approval of CBHE. For this new option, the department created a set of new courses including "Exploratory Data Analysis with R", "Statistical Methods in Learning and Modeling", "Nonlinear Optimization", "High-dimensional Data Analysis", "Statistical Computing" and "Scientific Computation". This program will train students in the skills highly demanded in today's job market. Our alumni are welcome to come back to join our graduate programs.

Greetings from the Graduate Program Director (Computer Science). Our graduate program stays strong. We have seen a number of students take advantage of the 2+3 program in Computer Science that allows a student to overlap a part of undergraduate and graduate studies, allowing the student to earn both degrees at the same time and eliminating up to 12 credit hours. We have a steady stream of new international students and have seen a good number of students graduate every semester. A number of our international students have taken advantage of the summer internship program that allows them to earn up to three credits while gaining valuable experience working in a corporation. Our cooperation with Express Scripts has resulted in them sponsoring

projects in the graduate courses in Software Engineering and Enterprise Web Development.  We have a number of new exciting courses being offered every semester in cybersecurity, machine learning, and biological data science.  Two of our students won awards in the Graduate Research Symposium. Some of our students have been involved in research with the faculty and have submitted papers for publication in peer-reviewed journals.  We have a few new faculty members and hope that our graduate program will continue to grow and thrive.

# DEPARTMENT ACTIVITIES

**Undergraduate Clubs**   Professor Mark Hauschild   sponsored the Computer Science Club and Professor David Covert the Math Club. They report:

The Computing Club is focused on getting students to apply their skills in computing projects with other UMSL students, as well as applying their knowledge in competitions against other students in Hackathon's. Last semester three teams of students built computing clusters from Raspberry Pi's and the semester before that we built a computing cluster with donated Pentium desktops. We have hosted talks involving prominent current and former students, such as the founder of Beanstalk Web Solutions, Tim Hebel. We also hosted a talk by George Gerules on his work for NASA in the Frontier Development Lab. This semester a group of our students went to HackISU and in previous semesters have engaged in other Hackathons. Current projects involve working on a Computing Club mobile app to look for free food on campus as well as image recognition using the Raspberry Pi.  We also are involved in promoting the Open Programming Competition every year. This semester is being capped with a pizza party and movie viewing/discussion around the implications of artificial intelligence.

Here is an glimpse into what the Math Club has been doing.  Our activities have included having active Pi Days. We had lots of pizza, desserts, and had some giveaways for participants including t-shirts and stress balls.  Pi Days also included some art activities (decorating pi-themed posters), estimating pi using the Buffon Needle Problem solution, and a pi digit recitations (our winner this year knew more than 300 digits of pi - I think he stopped out of politeness).  We have had a few game days where we play different board games like chess, Set, etc.  We have had a topology day where we made Mobius strips, and we even made Mobius strips by inverting a torus (a blueberry bagel in our case). We've watched lots of math related videos including lectures by Terry Tao on the Cosmic Distance ladder (joint with physics and astronomy club - watched in the UMSL planetarium), How Not to be Wrong by Jordan Ellenberg, N is a Number: A portrait of Paul Erdos, and many more.  Al Stanger taught us how to use math (and his cool inventions) to determine the day of the week on which you were born, and we've had a day on the math of juggling consisting of demonstrations by our Math Club president.

3. If $f(x) = \left(\cos(3x)\right)^2$ evaluate $f^{(20)}(0)$   (note: $f^{(k)}$ denotes the $k^{th}$ derivative)

4. Evaluate the expression $\dfrac{1 - \left(\frac{1}{2}\right)^3 + \left(\frac{1}{3}\right)^3 - \left(\frac{1}{4}\right)^3 + \ldots}{1 + \left(\frac{1}{2}\right)^3 + \left(\frac{1}{3}\right)^3 + \left(\frac{1}{4}\right)^3 + \ldots}$

Professor Ron Dotzel organizes the Andalafte Competition every year, a competition open to students who have completed a year of calculus. Last year we had two winners of the 14th annual Andalafte Competition:
Tom Hogancamp (1st place)
Paul Hartmann (2nd place)

The Missouri Junior Science academy held its annual regional Spring Symposium at UMSL. Seventeen high school students from the Greater St Louis region presented their papers. Nine students were selected for the state level Symposium. The event was organized by Professor Ravindra Girivaru and was sponsored by the Math and CS department. Our newest faculty members, Drs Badri Adhikari and Mark Hauschild were in the panel of judges.



Our department Python Training Event took place Wednesday, March 8, 2017 in 410 SSB from 2 to 5 p.m. and was open to computer science students or any UMSL registered student. The training was provided courtesy of KPMG. All pythons were returned to the wild after the event. :-)



Congratulations to Adjunct Professor Carol Defreese. On September 28, 2017, she received the Chancellor's Award for Excellence to a Part-Time Faculty Member. Quoting the award: "Known for her creativity and innovation – including the flipped classroom model she uses to keep classes engaged in ways they've never experienced before – DeFreese represents the best in teaching."



Professor Mark Hauschild and Kimberly Stanger received our 2017 Departmental Internal Awards in recognition of their outstanding dedication and service to the department in May 2017. Congratulations to both of them.

We would like to recognize some of the outstanding work of our current faculty who have received external awards in the past two years from sources ranging from Express Scripts to NASA and NIH. They are
Sanjiv Bhatia, Sharlee Climer, Wenjie He, Cezary Janikow, Qiangtang Jiang, Jianli Pan and Yuefeng Wu.

The Department awards a number of scholarships to undergraduate majors in math and computer science. Last year, more than $50,000 was given out to our best scholars. Congratulations to

| | | | |
|---|---|---|---|
| Michael Chan, | Josiah Cornett, | Andrew Dillon, | Brian Edson, |
| Taylor Freiner, | Max Gao, | A Gururaj Rao, | Austin Hester, |
| Joseph Hill, | Stefaniya Ivanova, | Maryam Khan, | Kristoffer Lindal, |
| Denis Moyseyev, | Jennifer Rawls, | Alec Roques, | G Roques, |
| Ted Anthony Uy, | Tiffany Vogelsang, | Bailee Warsing, | Jared Weston, |
| Nicole Yingst. | | | |

# ALUMNI NEWS

### John Harris
**BS Applied Mathematics, 1984**
**Career**: Recently retired after 35 years as an Industrial Engineer for UPS, moved several times around the country for them and completed my career as one of the corporate engineers over the US domestic hub operations.
I am now staying involved with a small tech start-up.
**Favorite thing about UMSL:** The people and friendships made.
**Advice for students:** Learn your core degree very well, but also understand the importance of other activities outside of your field of study. Those areas of interest are almost always revisited and utilized at some point in your career.
**Other news:** My wife is also a graduate from UMSL and continues to enjoy a very accomplished career as a jazz vocalist domestically and internationally.

### Bradley Flynn
**BS Mathematics, Minor in Physics, 2014**
**Current work:** Express Scripts - Enterprise Data Science, Senior Data Scientist.
I enjoy it immensely! My work is centered around techniques that include predictive modeling, machine learning, text mining, segmentation and clustering which helps us develop solutions to increase revenue and improve our member experience. I get to develop our next generation of predictive models for targeted business solutions. Our team also works with applications involving text mining to mine Voice-of-Customer data to make our business processes more efficient.
**Favorite professor:** Ravindra Girivaru, but I still come back and visit others that I worked for or have taken classes with.

### Dennis McCarthy
**BA Mathematics, 1968**
**Career:** Retired from National Weather Service
Incredibly challenging and satisfying career. Started as a meteorologist in the Air Force during Viet Nam era. Moved to National Weather Service in 1974. Worked as a forecaster in Portland, ME, and Indianapolis, deputy meteorologist in charge
One year graduate school at University of Iowa.
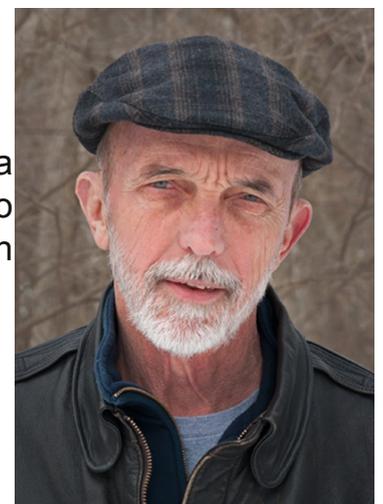Joined U.S. Air Force in 1969 rather than be drafted.
Commissioned 2nd Lieutenant August 1969
Assigned to St. Louis University for meteorology 1969-70.
Assignments as Weather Officer in Ohio and Texas.
Discharged 1972
National Weather Service 1974-2007. Retired.

Forecaster in Portland, Maine, and Indianapolis mid to late '70s.
Deputy Meteorologist in Charge at St. Louis 1980s.
Meteorologist in Charge at Norman, OK 1990s.
Central Region Director 2000-04.
Director of Climate, Water and Weather Services 2005-07.

**Favorite professor:** Advisor: Prof. Pat Cassens. Favorite besides Cassens was Andalafte, of course.

**Favorite thing about UMSL:** My time at UMSL was unbelievable. In spite of all the stress and uncertainties of the late '60s, UMSL was a truly great experience. It was fun to be in on the "ground floor" and see the growth that was just beginning. Very exciting! The Math Department was small and close. The professors were fantastic. We started a Math Club and had occasional meetings. I remember one guest speaker emphasizing how "…math opens doors." That was certainly the case for me. Math helped me choose a path during very uncertain times. Even though I had to change direction, I was able to find a way to an incredibly interesting and rewarding career with the foundation I was able to build at UMSL.

**Other news:** Residing in St. Charles with my wife, Maggie, a 1969 UMSL graduate in English. (We did meet at UMSL.) We have four children, seven grandchildren and one "on the way." Our two sons played soccer for UMSL in the '90s. Besides spending time with our grandkids, Maggie is a watercolor artist and I am most active with photography.


## Michael Francis Moriarty
**BA Mathematics, 1968**
**Career:**
- Retired from IBM Corporation on January 01, 2014.
- Computer Programmer/Software Engineer with IBM Corporation at the Rochester, Minnesota development laboratory from 1968 to 2013.
- First Class Petty Officer in United States Navy from 1969 to 1971 (Military LOA from IBM).
- 2nd Shift Computer Operator at Laclede Gas Company from 1965 to 1968.
- Patents granted: Seven software patents, two in China, one in Korea, one in India and three in the USA.

**Favorite professor:** Professor Edward Z. Andalafte in the Math Department. Dr. Andalafte was my favorite teacher as well as my adviser. He understood that I was working my way through college and kindly pushed and encouraged me to improve my skills as a student and a person. I enjoyed going on hikes with him and other math students. I often visited with him when I returned to St. Louis after I graduated. I was very saddened by his sudden death while teaching. When I think of UMSL, I think of EZA!

**Favorite thing about UMSL:** I was able to work full time and attend UMSL full time for three years. Because UMSL had just started, our classes were small and were all taught by PHDs. It was a great experience, which I will never forget. Without my degree from UMSL I would never have been hired by IBM or enjoyed the life I have experienced.

**Other news:** Volunteer Assistant Coach for Junior High Girls Soccer Team in Byron, Minnesota since 2014. Enjoying time spent with grandchildren.

## Michael H. Rubin
**BA Mathematics, 1968**



**Career:** Retired IT Consultant/Software Engineer

I enjoyed it very much. When I was a Senior, I was considering going into teaching math. At a Career Day, I interviewed with IBM, and they recommended me to the Department of Defense. I found myself part of a training program for a computer-based U.S. Army initiative. Large mainframes were in their infancy, and I got in at the right time. I moved from a technical focus to management and went on to manage large-scale programs and organizations for McDonnell-Douglas, Amdahl Corporation and Fidelity Investments. Without the technical degree, I'm not sure what I would have done, since the only other options for 'major' when I enrolled in 1964 were English, History and Chemistry, none of which interested me.

**Favorite professor:** Dr. Kenneth Miller and Dr. Andalafte

**Favorite thing about UMSL:** Convenience. I could stay at the good job I had and live at home, and still get a first-class education.

**Advice for students:** Do more than you think you can. Reach for things that are out of reach. You may surprise yourselves with the results.

**Other news:** Doing non-profit work, learning how that works. Currently focused on the Ambassadors of Harmony Foundation as their Secretary/Treasurer. Singing with the Ambassadors of Harmony, the Barbershop Harmony Society's four-time International Men's Chorus champions.

## Clint Sharp
**BS Computer Science, 2014**

**Current work:** I work for Maritz Motivation Services and I am an Analyst-Developer.

I very much enjoy what I do. I code websites that allow users to give and receive recognitions from their peers and management for jobs well done.
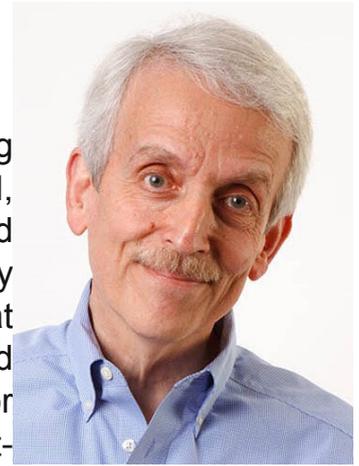


**Favorite professor:** John Antognoli

**Favorite thing about UMSL:** My classmates cared and wanted me to succeed. We all helped each other. Especially when coding assignments or studying for tests.

**Advice for students:** My advice for current students is to be engaged with your professors. If you are struggling or do not understand, go ask your professor. All the professors I had were more than willing to help. BUT I had to ask them. They were not going to chase me down.

**Other news:** I am still in contact with classmates. I even recommended a classmate for a position where I work and he received the job.



MATH AND CS PICNIC
Everything was delicious and everybody had a great time at the Math and CS Picnic.

## Tjaart van der Walt

**MS Computer Science, 2015**

**Current work:** Outside Open, Santa Barbara CA, Software Developer

Our company does Devops work, and implements smaller software projects for several clients in the Santa Barbara region.

**Favorite professor:** Sanjiv Bhatia

**Favorite thing about UMSL:** My wife and I came to UMSL from South Africa. UMSL gave us the opportunity to work as research and teaching assistants. Without this income, and the financial support we received, we would not have been able to afford to study in the US. For giving us these opportunities, I will be always grateful to UMSL.

**Advice for students:** Be inquisitive.

**Other news:** My wife Maria (she studied Mathematics at UMSL) is pregnant.

## Nathan Wang

**MS Computer Science, 2003**

**Current work:** USDA as Chief Software Architect.

The Federal Government is under transformation. That opens lots of opportunities for IT folks. I enjoy being a part of the reshape of the government process. My studies at UMSL in computer Science laid a very solid foundation for my career growth. The fundamental computer classes such as Computer Operation System, Software Engineering, Advance Algorithms etc. are hard to learn. However, I still benefit from them from time to time at work.

**Favorite professor:** Sanjiv Bhatia and Wenjie He.

**Favorite thing about UMSL:** Lab work for some near real world projects

**Advice for students:** Focus on the fundamentals; taking more mathematics classes. Find an internship while in school. Artificial Intelligence, Virtual Reality and mixed Virtual Reality are the trend in IT and the development of them may impact everyone's daily life. Keep your eyes on the development in these areas while you are in school. Don't spend all your school time on textbooks

## 10th Annual Andalafte Hike.

On October 28, we had our 10th Annual Andalafte Hike. Professor Andalafte, a much loved professor, used to take students to hike mountains in the Ozarks. We do a far less strenuous three mile hike closer at hand. In this picture, professors, students and alumni, all bundled up in the cold, seem to realize they are in for a long winter.

Congratulations to our math alumnus Adam Tiemann. Emily Donaldson, Adam Tiemann and Jacob Duren pose with their plaques for taking top prize in the 2017 Industry Issues Competition put on by the Society of Financial Service Professionals. They also won a $5,000 scholarship check.
For more info : https://blogs.umsl.edu /news/2017/04/16/fsp-competition/



Barry Hykes Jr, BS(Biology and Math),2015, received a Masters in Bioinformatics from Saint Louis University and is now a bioinformatician at the Washington University Schoolof Medicine. He is the sixth author on a paper published in the journal Science. It is titled
Tropism for tuft cells determines immune promotion of norovirus pathogenesis. (http://science.sciencemag.org/content/sci/360/6385/204.full.pdf)
Congratulations, Barry!

## JOIN US ONLINE!

@UMSLMathCS

Join us on Facebook

## STUDENTS AND ALUMNI!

You are invited to join us at our two annual Fall events. We would love to see you!

### MATH AND CS PICNIC

Saturday, September 15 at 12pm
Shaw Park in Clayton, North Shelter.
The department will provide meat for grilling, all condiments and paper/plastic items. Please bring a beverage, side dish or dessert.

### ANDALAFTE HIKE

Saturday, October 27 at 9:30am
River Scene Trail, Castlewood State Park
Details will be posted at www.umsl.edu/mathcs closer to the hike date and on Facebook (/groups/ UMSL.MathCS.alumni/) and on Twitter.

## WE NEED YOUR GIFT!

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