

The Dodecahedron



A note from our President

Dear Academy Members and Friends of the Arkansas Academy of Industrial Engineering,

Happy Spring to each of you. Woouooo Pig Soooie!

I hope this note finds you safe and well in these strange Coronavirus times. I am saddened our social-distance mandates required us to cancel our Spring Banquet. We planned some fun new games to complement our Induction Ceremony of new academy members.

All this will be carried forward next year. In the interim, I wanted to update you on our recent activities and planned virtual business meeting in July.

First, we have three new board members I appointed for the interim period: Bryan Hill, Mandy Robinson, and Erica Kelley. With their support, our FY 2021 board slate includes:



Jonathon Fite
AAIE President

<u>Member:</u>	<u>Term:</u>	<u>Role:</u>
Karen Jewell	2022	President
Martha Wolf	2023	President-Elect
Stu Garrett	2024	Secretary
Jim Burgin	2021	Treasurer
Jonathon Fite	2021	Past President
Ross Tompkins	2022	A4U – Mentor Circles
Marc Alley	2022	Membership
Bryan Hill	2023	Global Studies
Mandy Robinson	2023	A4U – Mock Interviews
Erica Kelley	2023	Publications/Publicity

I am so grateful for the leaders who recently rolled off the board of directors: Rita Willcoxon, Alvin Rhodes, Derek Malstrom, Angela Kuli and Vance Clement. Each of these wonderful people deserve a loud Woo Pig Soooie for their many years of service and support of the Academy, the Department and the UofA I.E. students.

Next, I want to give you a heads up about our virtual summer business meeting. In addition to postponing our Spring Banquet, we will also miss convening in Bell Engineering for our annual spring business meeting where we get an update on the Department, the College and how AAIE is supporting the next generation of Industrial Engineers. This year, we will

(Continued on page 2)

Spring 2020

AAIE
Officers

Karen Jewell
President

Martha Wolf
President-Elect

Stu Garrett
Secretary

Jim Burgin
Treasurer

Jonathon Fite
Past President

Inside this issue:

From the President..... 1

Scholarship News 3

From the Department... 4

2020 Nominees 6

A4U..... 9

Student News10

*AAIE would like
to express their
deep appreciation
and gratitude to
the board
members rolling
off the board this
year... Their
efforts and
dedication have
helped make AAIE
what it is today.*

conduct the business meeting virtually in conjunction with our July Board of Directors meeting.

Look for future emails about the meeting logistics, but our plan is to gather virtually Saturday morning July 25, 2020. During the business meeting, we will hear Department and College updates from Dr. Pohl and Dr. English, and we will vote on the Board of Directors slate, approve of the annual budget and fund student organization budget requests for the coming year.

Turning to the progress in 2020, the Academy never ceases to amaze me. We are all united by a sincere desire to advance the Department of Industrial Engineering. Everyone comes to the table with different skills and ideas, and the end results always impress me.

Our scholarship programs continue to be our beacon on the hill. Bob Etien does an incredible job leading the Scholarship Committee. Until the recent market turmoil, our Academic, Financial Need, Global Studies and Graduate Student endowments totaled more than \$2.8 Million, providing a platform for well over \$100,000 in scholarships this year! Amazing! Our Academy remains the envy of the college and other I.E. programs around the country. Please take a look at Bob's article in this issue for the latest update.

The A4U Committee continues to improve the programs we provide to students, including in-person and virtual mentor circles, plant tours, and mock interviews (both live and over the phone). I am so thankful for the A4U Committee members and the extended family of Academy

members and friends including Marc Alley, Ross Tompkins, Karen Jewell, Tarek Taha, Vance Clement, and so many more who help make this program such a success.

Last year Alvin Rhodes transitioned the membership committee leadership to Stu Garret and we did not miss a beat. As you see from the great list of 2020 nominees, we will induct another great class of Academy members when we gather again next year. To steal a line from last year's President update, "our organization is a multi-race, multi-gender, multi-generational juggernaut. Enough said!"

Have you noticed how great the stories are in the Dodec? The student interviews and focus stories on members of our organization are always interesting. After this issue, Martha Wolf will hand off the duties to Erica Kelley. Going forward the Dodecahedron will be an electronic only publication. This will result in significant cost savings we can redirect into student support efforts.

In all, I am very proud of the Academy and feel privileged to have had the honor to serve as President this year. Karen Jewell, our incoming President, will do an incredible job in 2021. My youngest son begins his college career this fall and like his mom and dad, will also be an Arkansas Industrial Engineer. Thank you all for your continued support of the Academy and future Industrial Engineers.

Go Hogs!

All the best,
Jonathon Fite
BSIE '96, MSIE '98

SAVE THE DATE!!!

AAIE is working to adjust to the COVID 19 situation with regards to our board meetings going forward. Our next meeting will be virtual, then we will evaluate for the Fall and winter meetings when we get closer.

Summer board meeting July 25—virtual event

Fall board meeting September 25, 26 Frisco TX

Winter Board meeting February 2021, Hot Springs AR

AAIE Banquet/ Meeting April 16, 17 2021, Fayetteville AR

Scholarship News

On the Road to \$3,000,000

The support for students provided by the Arkansas Academy of Industrial Engineering over its lifetime continues to amaze me every time I look at the numbers. With the Academy's 35th Anniversary a little over a year away, I decided to look back at a couple of other significant points in time. We celebrated AAIE's 25th Anniversary in the Spring of 2011. At that time three Scholarship Endowments totaled an impressive \$1,305,000 and were supporting \$31,500 in annual scholarships. Five years later on the 30th Anniversary, Endowments reached \$1,780,000 and were generating funds for \$70,000 in annual awards. In September 2017 AAIE announced the establishment of a new Graduate Studies Scholarship Endowment. As I write this article the four Academy Endowments currently have a balance of \$2,850,000. I am happy to inform you that \$130,000 in new Scholarships are being awarded to more than 50 students for 2020, (AAIE's 34th year).

In the last nine years your Academy Scholarship Endowments have grown from 3 to 4 and increased in value by \$1,500,000. More importantly student awards have

increased from \$31,500 to \$130,000 annually (see chart below).

Why not celebrate AAIE's 35th Anniversary in April, 2021 with Scholarship Endowments of \$3,000,000? If each and every member makes a personal commitment to make a donation to Scholarships during our 35th year, I am confident we can make it happen.

When we, as an Academy, remain committed to growing support for students through scholarships, the sky is the limit!

Bob Etien, BSIE, '66



Bob Etien
Scholarship Chair

Thank You!

Your Arkansas Academy of Industrial
Engineering is Making A Difference!

YEAR	Scholarship Endowments	Scholarships Awarded
2010-11	\$1,305,000	\$31,500
2011-12	\$1,330,000	\$31,500
2012-13	\$1,455,000	\$58,800
2013-14	\$1,625,000	\$53,000
2014-15	\$1,715,000	\$67,500
2015-16	\$1,780,000	\$70,000
2016-17	\$2,060,000	\$75,000
2017-18	\$2,455,000	\$80,000
2018-19	\$2,600,000	\$100,000
2019-20ytd	\$2,850,000	\$130,000

"When we, as an Academy, remain committed to growing support for students through scholarships, the sky is the limit!"

To make a contribution:

Please make check payable to:
**University of
Arkansas Foundation
and mail to:**

AAIE
Dept of
Industrial Engineering
4207 Bell
Engineering Center
University of Arkansas
Fayetteville, AR 72701

OR

Online at:
<https://aaie.uark.edu/giving/>

And don't forget to ask
if your company
offers matching
donations!



From the Department...

Dear Academy Members,

I originally wrote a letter for your DODEC which was filled with excitement for our students who were landing their dream internships, preparing for study abroad opportunities, finishing their Capstone projects, and of course, preparing for commencement. So much of what we knew as normal in the department has come to a halt, but we know that if anyone is good at change management, adapting to new technology, and being leaders for others across the college and across campus, it is Industrial Engineers!

Our faculty and staff have worked so hard to provide the same high level of education via remote platforms. At a time when it may have been easier to just wrap up the semester, we're still connecting with students individually, providing live lectures, and working diligently to ensure our students still have the best experience possible.

You may have recently seen INEG and OMT Professor Carrie Beam featured on our social media and in the Newswire for her work in creating a tutorial titled, "Moving Online in a Weekend" which went viral and has no doubt helped our campus neighbors as we sail through these uncharted waters. I could not possibly be more proud of our entire faculty and staff team for their determination to ensure we do not skip a beat.



Prior to the directive for us to teach and work remotely, Decision Day took place as normal and we look forward to welcoming 62 new IE students to the department.

We also recently wrapped up the spring Mentor Circles event, which many of you participated in. I am blown away by the support the mentors provide to our students. The topics at the event's breakout sessions ranged from personal finances, where students learned about their future retirement accounts and the best home-buying strategies, to selecting a company to work for and how to transition to the workforce from college. The advice they receive is invaluable and I know we everyone in attendance enjoyed the event.



Dr. Ed Pohl
Department Head

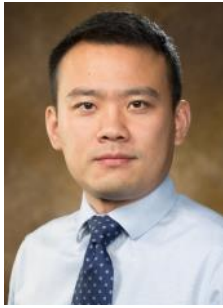


Our department had a record-breaking number of Seniors of Significance this year. The Arkansas Alumni Association chooses 71 seniors from across campus each year, commemorating the university's founding date of 1871. These students are chosen based on their academic achievements, leadership skills, and extracurricular activities. We are honored to celebrate five outstanding IE students who were chosen: Caroline Rhomberg, Zan Johnson, Karlton Haney, Kayla McKeon, and Lexxy Gentile. These students are all wonderful representatives of the department and we know they will do great things in their careers.

In Faculty news, Dr. Xiao Liu was recently awarded a National Science

*"...if anyone is good
at change
management,
adapting to new
technology, and
being leaders ... it is
Industrial
Engineers!"*

Foundation (NSF) Established Program to Stimulate Competitive Research (EPSCoR) grant to collaborate with IBM in harnessing big data aimed at improving how intelligent food-borne outbreak investigations are handled. Dr. Liu believes this project will advance the nation's food safety, cyber security, and economic welfare by innovating new statistical learning methodologies that enhance the critical capabilities of harnessing big event data with heterogeneous feature information. Dr. Liu was one of 34 fellows chosen in 2019 and I am very proud of him.



The University recently approved plans to implement an interdisciplinary Bachelor of Science in Data Science program, and I am happy to report that our own Dr. Manuel Rossetti has been chosen as the Director of the program! This interdisciplinary degree program includes core courses from the College of Engineering, the Fulbright College of Arts and Sciences, and the Walton College of Business. The program will be housed out of the IE department.



In Staff news, the College of Engineering's employee of the year has been an IE employee for three of the last four years, and we have one in the running this year, too. Carrie Pennington received the honor in 2016, Mindy Hunthorp in 2017, Ashley Reeves in 2019, and Marge Pasch with MSOM is in the running for 2020. All of our staff members play an integral role in the department, and we're glad they are being recognized on the college level!

In graduate student news, Ph.D. student Cesar Ruiz Torres won the Hans Reiche Scholarship award from the Society of Reliability Engineers at the RAMS



conference earlier this year. Like many of our students, Cesar is making a great name for himself as a researcher and I am excited to watch as he continues in the field. Our graduate students continue to do great things with many presenting at the fall INFORMS conference, the Winter Simulation Conference and the RAMS conference. We are in the process of recruiting our next graduate class. We have identified and are actively recruiting one Distinguished Doctoral Fellow, and two Doctoral Academy Fellows for next year's graduate class. We also have a very strong pool of M.S. applicants, many from our own undergraduate program, looking to come to graduate school in the fall. We are excited by the extraordinary accomplishments.

Thank you for investing in our students and our department. Your support is instrumental to our success. We are saddened to not be seeing you this April in Northwest Arkansas for the annual AAIE weekend. We always enjoy seeing you all, celebrating your accomplishments, and showing our gratitude for your generosity. Your board of directors is working diligently to find creative ways to showcase your accolades. We look forward to the day in which we can all be together again, but until then, please stay safe. My best wishes for health and happiness to you and your families.

"The University recently approved plans to implement an interdisciplinary Bachelor of Science in Data Science program, and I am happy to report that our own Dr. Manuel Rossetti has been chosen as the Director of the program!"



New AAIE Members for 2020

This year is an odd year, without a banquet to induct the new members, but we would still like to recognize the new members of AAIE, and welcome them into the organization. Below is a brief profile for each of the new members, and we look forward to a formal induction into AAIE at the 2021 Banquet.



Stu Garret
Membership Chair

Bonnie Sue Boardman **(BSIE 1991, PhD 1997)**

Bonnie lives in Mansfield, TX and is an Associate Professor in the College of Engineering at the University of Texas-Arlington. She has taught a number of courses spanning from freshmen levels to graduate levels on a variety of topics including Introduction to Industrial Engineering, Computer Applications in Industrial Engineering, Production and Inventory Control, and Planning and Control of Enterprise Systems. Bonnie has published multiple papers in conference and trade journals including the *International Journal of Production Research*. Her leadership in academia is noteworthy. The Academy's core trait of service is exemplified by Bonnie's contributions to committees and task forces such as the College Advisor's Committee and the College of Engineering Undergraduate Curriculum Committee. Her achievements have been recognized by her peers in numerous ways including nominations and awards such as UTA Provost's Award for Excellence in Teaching. When she's not serving others through improvements to engineering education, she and her husband Eric Flynn are gardening and keeping their dog, Daisy, happy.



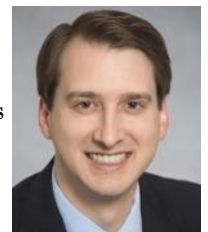
David Rieske **(BSIE 2003, MSIE 2005)**

David lives in Rogers, AR and is a Senior Manager Customer Logistics with Bayer Consumer Health. In this role he serves as a trusted collaborator with Walmart, Amazon, and other key customers, supporting OTIF (On Time In Full), On Shelf Customer Availability (OSCA), forecast accuracy, and supply chain optimization. Under his leadership Bayer has launched a direct-to-consumer shipping model and driven cost savings through a variety of projects and process improvements. In addition to his enterprise role, David serves the University of Arkansas as a Faculty Member, teaching Supply Chain Management and Occupational Safety and Health Administration in the Masters of Operations Management program. David's contributions have been recognized through multiple awards including the S.C. Johnson Officer's Award and the Pfizer Circle of Excellence Award. David and his wife Ashley have three children, Sydney, Elle, and Corbin. In addition to this duties at Bayer, David coaches his children in sports and counts woodworking and home projects among his hobbies.



Thomas Duncan **(BSIE 2005)**

Tom lives in Charlotte, NC and is a Director of Investment Banking with Wells Fargo Securities. He has over 13 years of experience as an Investment Banking Director, advising companies on mergers, acquisitions, and capital raising. He serves Wells Fargo as a trusted advisor to business owners, boards of directors, management teams and automotive aftermarket companies. Tom earned a Master of Science in Management Science and Engineering from Stanford University with a concentration in Economics and Finance and was named the University of Arkansas College of Engineering Early



Career Award winner in 2012. He has advised on transactions and raised capital for clients in excess of \$9 billion in aggregate. Tom and his wife Sheila Shaffer have two cats and enjoy travel, playing guitar, and listening to jazz music.

Alex Andelman
(BSIE 2003, MSIE 2005)

Alex lives in Rogers, AR and is a Director of Strategic Accounts with J.B. Hunt in Lowell. Prior to joining J.B. Hunt he held multiple positions at Walmart including Director of Global Security and Director of International Compliance. In his role with J.B. Hunt, Alex supports Operations and field leadership for the Dedicated Contract services division. Throughout his career he has provided risk management leadership in compliance risk assessments, risk elicitation, prioritization, root cause analysis, solution creation, global security and operational prioritization. He applies core industrial engineering principles to automation, standard operation procedures, project management, associate onboarding, quality reporting/assurance, and problem solving. Alex and his spouse Calah enjoy multiple outdoor activities such as backpacking/hiking, canoeing/kayaking, bike riding, and snow and water skiing. When he isn't volunteering through memberships in organizations such as Rogers Rotary, he is an Inventor and U.S. Patent Holder.



Ryan Daniels
(BSIE 2001, MSIE 2003)

Ryan lives in Tallahassee, FL and is a Vice President-Manufacturing with Coastal Forest Resources in Havana, FL. In this capacity he has full profit-loss accountability for multiple plywood facilities and a lumber manufacturing facility. Those duties require him to develop plans, execute strategies, and deliver results for all key metrics. His accomplishments have helped the company break profit records, reduce



workplace injuries, and reduce workman's compensation spending. In previous roles at Weyerhaeuser, Ryan was recognized with the President's Award for Innovation and at Georgia-Pacific, he was named the youngest Plant Manager at age 32. Ryan and his wife Rachel have three children, Asher, Claire, and Jewell. Ryan is passionate about giving back to the community and it shows in a wide array of services such as youth hunting, sports coaching, church, and hurricane relief efforts.

Chase Rainwater
(BSIE 2004)

Chase lives in Springdale, AR and is an Associate Professor in the Department of Industrial Engineering at the University of Arkansas. He has taught a number of courses across a broad variety of topics including Applied Probability and Statistics, Decision Support Systems, Linear Optimization, and Methods and Standards. Chase has published multiple papers in conference- and trade-journals including *IIE Transactions* and the *European Journal of Operational Research*. His leadership in academia is noteworthy, as evidenced by multiple awards including Outstanding Researcher, John L. Imhoff Chair, and four-time INEG Outstanding Teacher. The Academy's core trait of service is exemplified by Chase's contributions that have been recognized including Razorback Regional Volunteer of the Year and Outstanding Advisor to the IIE South Central Region. When he's not teaching, researching, or leading doctoral candidates, Chase is coaching robotics teams and mentoring in STEM education. His primary hobby is to travel the world as much as possible. Chase and his wife Candace have one son, Sawyer.



We also had two candidates nominated in 2019 who were unable to attend the banquet for induction. Hopefully they can join us in 2021 their profiles are included below:

(Continued on page 8)



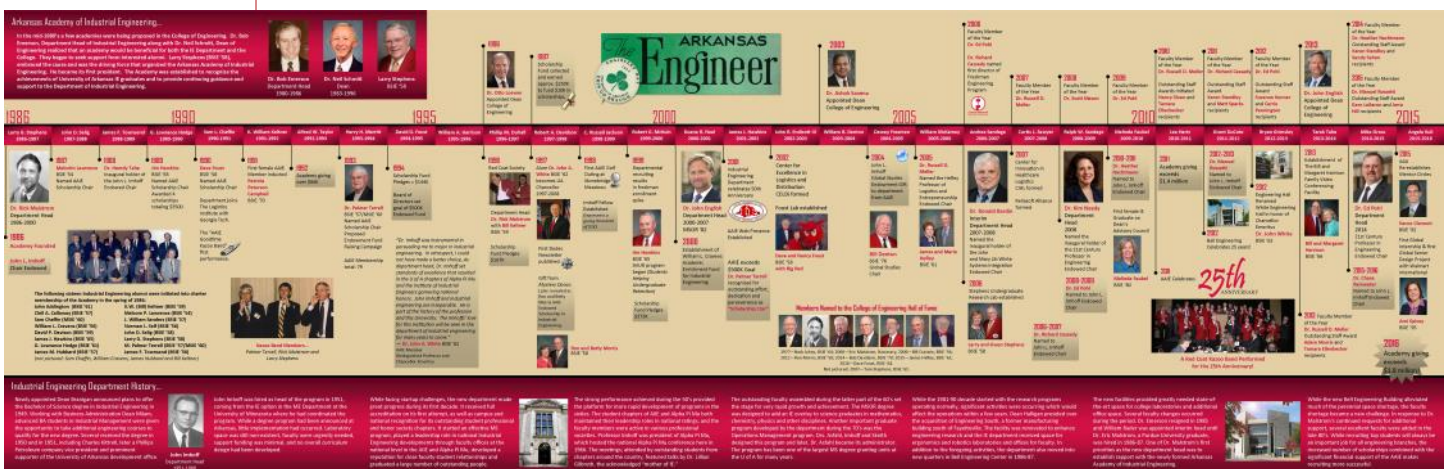
Willie Montgomery III (BSIE 2004, MSIE 2009)

Willie lives in Rogers, AR and is a Senior Director, Data Scientist within the Supply Chain Planning and Analytics team of Walmart Inc. In this capacity he leads a team of data scientists and consultants on a strategic portfolio of 20+ initiatives, including the Strategy and Analytics Lead on the CEO's "Urgent Agenda" team that is propelling corporate growth in multiple geographic markets. His accomplishments have helped the company improve in realms of productivity, customer satisfaction, ordering processes, and pricing models. Willie has been recognized with numerous awards, honors, and scholarships including the Presidential Leadership Scholar, College of Engineering Early Career Alumni of the Year, and a Research GEM Fellow at Stanford University. He is an active volunteer with multiple organizations including the Louis Stoke Alliance for Minority Participation and is a decorated US Army veteran. When he's not filing patents he enjoys fitness, travel, reading, and making an impact on societal change.



Nia Wright BSIE 1993, MBA Tulane University 1997)

Nia is an Instructor in the Operations Management Masters Program at the University of Arkansas College of Engineering. She teaches Supply Chain Management and Global Competition. Nia is married to Thomas J. Wright, Jr. – BSEE University of Arkansas; MS Engineering Management University of New Orleans; Member of Arkansas Academy of Electrical Engineers. They have two children Thomas J. Wright III (Trey) and Summitt Wright. Nia's hobbies include being active in the management of family farms in Northeast Arkansas and Southeast Missouri. She has a special interest in encouraging young people to pursue degrees/careers in STEM related fields. Nia volunteers for Church Member, Pleasant View Church of Christ Pleasanton, CA, P.E.O. – member since 2006 and School Fundraising.



Timeline of the Arkansas Academy of Industrial Engineering

In 2011 AAIE celebrated its 25th anniversary. As a memento of the celebration a timeline was constructed that demonstrated the highlights of the first 25 years. In 2016 the timeline was updated for the 30th anniversary. 2021 will mark 35 years of the Academy. You can view the actual timeline in the Craven's Conference Room in the Department next time you are in town!

A4U Update—by Ross Tompkins

As we see the start of a new academic year, A4U is busy kicking off another year of student support. First off A4U would like to welcome a new name to the committee. Mandy Robinson is our new Mock Interviews co-chair. Mandy is a 2019 inductee and we are excited to have her onboard. Upcoming and ongoing events this Fall are Mock Interviews and Mentor Circles.



Mandy Robinson
Mock Interview
Chair



Ross Tompkins
A4U Chair

Mentor Circles

This year, the mentor circles made a change based upon member feedback. We found that the spring semester becomes full with projects, events, and interviews. Instead of having monthly circle meetings, in February we held our first “All Circles Meeting” event. Students from all mentoring circles rotated through three popular topics presented by IE Alumni and AAIE members.

Brittany Watts presented on “First Job Transitioning”. Alex Andelman along with Marc Alley discussed “Selecting a Company”. Vance Clement covered “Financial Basics”. In addition to the presenters, alumni Karen Jewell, Jennifer Carter, Bailey Fraizer-Whaley, and Ross Tompkins networked with the 28 students (over a 3 course catered meal!) following the presentations.

The all circles event was an opportunity to discuss relevant topics for the students as well as a way for alumni engagement for current and future AAIE members.

A very special thank you goes out to Ashley Reeves, Carrie Pennington and Dr. Tish Pohl for their outstanding support to make this event professional and very successful!



“In February, we held the first All Circles Meeting event that allowed students from all circles to rotate through three popular topics.”

IE Student Elected Home Coming King : Zan Johnson

The Associated Student Government and Student Alumni Association announced Zan Johnson and Chimdera Nzelu as the 2019 Homecoming King and Queen Friday, November 1, 2019.

Alexander “Zan” Johnson, is an Honors College Fellow majoring in industrial engineering and economics. He has been working on research with associate professor Ashlea Bennett Milburn. The project, “Reducing Access Disparities in Emergency Response,” is funded by a state undergraduate research fellowship through the Arkansas Department of Higher Education. The goal is to identify the best spots for shelters during natural disasters, with an eye toward protecting vulnerable populations.

Researchers believe optimal shelter location can reduce suffering of victims of natural disasters. Vulnerable populations may have factors limiting their access to these shelters causing them to be further disadvantaged during disasters. Johnson’s research aims to incorporate vulnerabilities into the shelter location decision-making process to help suggest access that is more equitable in the future. His research will determine accessibility scores of shelters, and will adapt those scores to incorporate vulnerabilities like health needs and mobility. It will also optimize locations for chosen response plans and compare actual versus optimal locations using data from Hurricane Florence.

“Through this research I have been able to apply the knowledge I have gained through various classes to an important issue,” Johnson said. “I have enjoyed the relationship I have been able to form with my research mentor and the skills I have gained the process. I will also complete my Honors thesis on this research next semester.”

Johnson has had the opportunity to study abroad three times thanks in part to the Imhoff Global Studies Scholarship.

“Through my service learning trips to Mozambique and Belize I was able to use my engineering background in situations with extreme resource and time constraints in backyard farming systems and water filtration projects,” he said. “Although this



work will likely not be applicable to the job I have after school, the leadership and teamwork skills I gained will benefit me.”

“Through my time in Israel I was able to see how my degree will be useful in the field of startups, which



were the focus of the trip. Getting the opportunity to interact with a culture dedicated to innovation

was exciting and inspiring. I can see myself pursuing a start-up venture and the interactions I had on this trip will help shape those opportunities.”

In addition to his role as Homecoming King, Zan serves as the president of the Volunteer Action Center and as the founder and president of the Club Running team. He has completed two internships, one with Black and Veatch of Overland Park, Kansas, and one with Wilson Coker Wealth Advisors, of Rogers, Arkansas. Johnson has also received the John L. Imhoff Service Award.

Zan was also one of the five Seniors of Significance for 2020 from Industrial Engineering.

“Through this research I have been able to apply the knowledge I have gained through various classes to an important issue,” Johnson said.

THE DODECAHEDRON is a publication of the Arkansas Academy of Industrial Engineering, and the views expressed are those of the AAIE only and do not reflect the official view of the University of Arkansas, the College of Engineering, or the Department of Industrial Engineering. THE DODECAHEDRON is published semiannually and is intended for the membership of the Arkansas Academy of Industrial Engineering.

Contact the Editor at moogiequiter@fastmail.com



**Arkansas Academy of Industrial Engineering
c/o Department of Industrial Engineering
4207 Bell Engineering Center
University of Arkansas
Fayetteville, AR 72701**

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