DMS 2021 Spring Newsletter

Congratulations DMS Graduates

This year, despite the difficulties imposed by COVID, an incredible seven DMS students graduated with their bachelor's degrees – the largest graduating class in the history of the department. Two of these students, Daniel Olusakin and Unekwu-Ojo Shaibu, were co-valedictorians of their class. Mr. Olusakin and Mr. Shaibu each gave valedictory addresses during the university's commencement ceremony. The other DMS graduates are Mofoluwasho Akinlade, Chedera Iguwe, Pedro Martinez-Soto, Adedapo Onabajo, and Shaniah Tullis.

The department extends a hearty congratulations to each of these amazing students for persevering in their studies despite the global pandemic. Further congratulations are due to Mr. Olusakin and Mr. Shaibu for graduating co-valedictorians of their class. These achievements demonstrate the dedication and commitment of DMS students and their ability to succeed in the face of adversity.

When contacted, three of our graduates shared personal statements and photos with the department.

Daniel Olusakin

I ended up joining the Department of Mathematical Sciences in a very unexpected way and I can say it was one of the best decisions I ever made at Lincoln University. The department provided a safe space for me as I was transitioning into my life as an international student. The faculty and staff were very helpful and intentional about helping students grow. The coursework also enhanced my experience as a student and augmented my capabilities as a Software



Engineer. I have been working as a full-time Software Engineer at Google LLC on the "Google Assistant" personal AI assistant since March 2021. The job is located in Mountain View, CA. I plan to grow my capabilities as a Software Engineer and help other upcoming students achieve their dreams in the field.

Unekwu-Ojo Shaibu

My experience at the Mathematics department was exciting and full of learning opportunities. The professors fully understood the course content and delivered their lectures with love and laughter. We learned Abstract Mathematics like we learned Algebra, because our professors were intentional about a concept-oriented and practical approach. I enjoyed learning with my colleagues, who were some of the smartest



people I have met. The administrative staff was effective in communication and organization. Overall, it was a great experience. I will soon be working at Schmidt Futures as an Associate Product Manager. In this role I will be applying my analytical skills to improve societal outcomes through technology.

Pedro Martinez-Soto

The Department of Mathematical Sciences was very welcoming when I started at Lincoln University. All the faculty and staff from it was very helpful helping me explore careers that a Mathematics major student could pursue. The diverse coursework in probability, calculus, statistics, and computer programming allowed me to be prepared for internships and perform at a competitive level. I am currently in a full-time role working as an actuarial analyst at Milliman Financial Risk Management in Chicago, IL. What I have planned for the near future is passing the rest of actuarial exams to become a credentialed actuary.



Adedapo Onabajo

My experience with the Department of Mathematics at Lincoln University was very intriguing yet challenging. I remember signing up as a Mathematics major thanks to the advice I received from Dr. Tameze who encouraged me to develop more on my technical skills by adding Mathematics as a second major. This decision was a huge blessing to me as I was able to gain in-depth knowledge on courses such as



Calculus, Analysis, Statistics, and Discrete Mathematics. These courses helped me

develop skillsets which provided me with numerous career opportunities. I thank the department professors so much for their constant will to help when I encountered classes which required extra study time and sophisticated projects. I can honestly say that the Mathematics department is one of the best at Lincoln not only for their quality of work but also their genuine relationship with the students. I will be starting as a full time Cyber Risk Analyst at Deloitte & Touche LLC in Houston, TX. In the coming years, I plan to leverage the knowledge and experience gained from Lincoln and my Job to set up multiple businesses which I have developed interests and passion for.

Shaniah Tullis (no photo) also shared that she will be attending Bentley University to pursue an MS in Human Factors and Information Design.

Congratulations again to each of our impressive graduates. We wish you the best in all your future endeavors, wherever life takes you.

Valedictorian Address from Daniel Olusakin

Below is the Valedictorian Address delivered by DMS graduate Daniel Olusakin

Good morning class of 2021. My name is Daniel Olusakin and I am greatly honored to be speaking to you all today as one of your co-valedictorians. First of all, I would like to thank God for us being able to reach and celebrate this milestone, none of this would be possible otherwise. Next, I would once again like to say congratulations to the class of 2021. This is the monumental moment we have all been waiting for. We endured sleepless nights, scorching hot dorm rooms, and 3am fire alarms to get here. I thank the faculty, staff, and administration for their support on our way here. Knowing us, it was probably very difficult for them as well. I must say, while it is truly an honor to be given the award of co-valedictorian, the greater honor was having the opportunity to live, learn, and grow alongside all of you.

I started my journey here at Lincoln University in 2017 as an international student from Nigeria. At the time, the only thing I knew about Lincoln was its legacy of producing leaders, one of which was the first president of my home country: Nnamdi Benjamin Azikiwe, also known as Zik. Now, one word comes to mind when I think of Lincoln: home. And no, it's not just because it was my delivery address for a long while. It took me three and a half years and a plane ride back here to think deeply of the duality in the meaning of "Lincoln pride". On one hand, there's the pride of being a part of Lincoln's legacy. And on the other hand, there's recognizing the amazing family and community that you are now a part of. A very well-thought-out chant if you ask me.

Like many others, I felt a great uncertainty when stepping onto Lincoln's grounds for the first time. Some of us had left everything and everyone we had known or grown up with. But by the end of the 2nd week, I knew the first, middle, and last names of everyone in my wing of Freddy D. Our journey might have started out with uncertainty but today, we can stand, or sit together, filled with conviction that these last few years have built us up in many ways. Moving forward, I would like us to remember the things that we have found at Lincoln. It might have been a home, a family, brothers, sisters, loved ones, passion, purpose, jobs, businesses, dreams, new goals, hope, mentors, partners, and most of all and non-arguably, a world-class education.

Finally, my fellow graduates, I want to recognize and celebrate the heroes that you all are. Along the way, we have inspired and uplifted one another, especially so in these times of great uncertainty. Some of us have lost someone or something dear to us over the course of the last few years, and despite all the pain, challenges, and setbacks, we persevered and still made it. I ask that when we leave here today, we celebrate our time here and each other and that we also keep true to the lessons we have learned here and continue to be an inspiration for others. And when you stare into the uncertainty that the future holds, look to those seated around you, to your friends and families in the stands here to support you, to your professors, instructors, and the staff here. We might have just concluded our journey but another awaits us tomorrow. Let us embark on this journey together and I pray to God that we be successful. Thank you for everything class of 2021, and congratulations!

DMS Faculty Achievements

While the worldwide pandemic has slowed down many activities during our Spring 2020 semester, DMS faculty and staff continue to pursue important research initiatives. Here we take some time to acknowledge their many achievements this semester.

Faculty Grants

Drs. Maiko Arichi and Jawahar Pathak were awarded a Faculty Development Grant for use in developing a handbook of math problems compatible with WebAssign, the new online tool used by the department for remote instruction during COVID. Dr. Airichi declined this grant to instead accept an Arthur Vining Davis Foundation Grant for her research on the automated identification technique of ischemic detection based on artificial neural networks from electrocardiograms using the discrete Hermite transform.

Dr. Moses Haimbodi was also awarded both a Faculty Development Grant and an Arthur Vining Davis Foundation Grant. Dr. Haimbodi chose to accept the Arthur Vining Davis Foundation Grant for his research project entitled "Density Functional Theory (DFT) and Time-Dependent Density Functional Theory (TDDFT) calculations of fundamental optoelectronic properties of CdSe Quantum Dots."

Mr. Abel Ayele also received an Arthur Vining Davis Foundation Grant. Mr. Ayele's grant will allow him to investigate student placement data in order to revise our introductory courses to better target those topics our students most struggle with. The grant will also fund training for MLC tutors to help them better address the needs of our incoming students.

Dr. Claude Tameze, Dr. Zachary Carson, and Mr. Abel Ayele, in collaboration with Dr. Dejene Dedefa from the Computer Science department and Dr. Christine Limb from the Music and Performing Arts department, submitted a proposal for the NSF grant on Building Capacity for HDR entitled "Delaware Mid-Atlantics Data Scientist Corps" (DaMADScientistCorps). This proposal, submitted in collaboration with the University of Delaware and Delaware State University, will strengthen and promote interdisciplinary training in foundational and applied data science, both in the classroom and in projects with internal researchers and external collaborations.

Dr. Zachary Carson, Dr. Claude Tameze, and Mr. Abel Ayele, in collaboration with Dr. Dejene Dedefa from the Computer Science department and Dr. Christine Limb from the Music and Performing Arts department, also submitted a letter of inquiry for the Sloan Foundation's Creating Equitable Pathways to STEM Graduate Education grant. This proposal, submitted with collaboration from Penn State University, will fund joint research projects in data science between Lincoln and Penn State, including summer internships for Lincoln students.

Conferences and Presentations

Dr. Claude Tameze, chair of our department, was interviewed in a Fireside Chat at the EduTECH Europe 2021 virtual conference. This conference was a continuation of the EduTECH global series, which had already held conferences in Africa, Asia, and Australia. Dr. Tameze spoke on the topic *Increasing Diversity in STEAM with Personalized Learning* and gave a Lincoln University perspective on individualized interventions.

Dr. Tameze also gave a similar talk, titled *Increasing Diversity in Stem with Personalized Learning*, at the Remote Connected Faculty Summit. This conference served as a forum for colleagues across higher education to come together and discus the challenges and opportunities posed by online and blended teaching.

Publications

Dr. Kenny Zheng submitted five writings for publication this spring. Dr. Zheng's research, conducted in collaboration with a multitude of partners from outside Lincoln University, focuses on the application of Sparse Analysis to medical imaging. Two of Dr. Zheng's submissions have already been accepted for publication. "AIM in Osteoporosis" was accepted as a book chapter for <u>Artificial Intelligence in Medicine</u>, while her research paper, "Sparse Analysis of Deep Features for Characterization of Breast Masses," was published by SPIE as part of its Computer-Aided Diagnosis conference.

The department would like to thank all of its faculty and staff for their continued hard work during the Spring 2021 semester. Congratulations to all of those listed here for their achievements in both research and curricular development. It is only through these efforts that our department can continue to offer an outstanding education for our students while also contributing to a better understanding of many important fields.

DMS Activities to Support Students

The Department of Mathematical Sciences engaged in several critical events to support students this spring. First, DMS Faculty and Staff attended the university's virtual open house to show incoming students what our department has to offer. Our faculty and staff representatives were able to meet with students and give them an overview of the department's programs and concentrations to help them decide if a math major is right for them. While certainly different from the in-person open house of years past, Lincoln University's 2021 virtual open house was nonetheless a great success.

In addition to providing information and support for new students, the department also hosted a tele-visit from Anya Gelernt-Dunkle, Assistant Director of Graduate Admissions at Bentley University. Ms. Gelernt-Dunkle has visited us on multiple occasions, both inperson and through web conference, to talk to Lincoln students about the graduate programs available at Bentley University's McCallum School of Business. Ms. Gelernt-Dunkle also informed our students about the annual Discover Bentley event, which aims to bring minority students to tour Bentley University so they can see firsthand the sorts of programs that may await them after graduation. Thanks in part to these efforts, several DMS alumni are already enrolled in MBA and similar programs at Bentley University. We look forward to working with Ms. Gelernt-Dunkle and Bentley University again in the future to continue connecting our students with their competitive graduate programs.

The department also worked with Ms. Renita Miller, Associate Dean of Access, Diversity, and Inclusion at Princeton University, to bring our students to Princeton's Prospective Ph.D. Preview event. The P3 event will be held virtually in October of this year. It is designed to help prospective students learn about the many graduate programs available at Princeton University. While all interested students can apply, the event is aimed at first generation/low income students, as well as historically underrepresented groups. Lincoln students have learned a great deal from this even in the past, so we are happy to continue working with Princeton to bring our students to P3 again this year.

Finally, Dr. Zachary Carson continued to represent the Lincoln University to the IST/HBCU Consortium organized through Penn State. This consortium aims to create collaborative connections between its members, which include several HBCUs in the northeast along with Penn State. The consortium's annual symposium was postponed until the fall this year, but our connections have already resulting in joint grant proposal between DMS faculty and staff members, faculty members from other departments, and faculty from Penn State. See DMS Faculty Achievements (page 3) for more details.