

MCCORMICK WHERE WE ARE

THOUGH PHYSICALLY SEPARATED, WE UNITED TO MEET COVID-19 CHALLENGES WITH CREATIVITY AND SUPPORT.

As COVID-19 forced us to move much of our work off campus this past year, the Northwestern Engineering community became more resourceful and resilient than ever. Our durable spirit has inspired whole-brain thinking in many ways—personally and professionally.

One professor used reclaimed items to build an outdoor oasis for teaching and meetings, helping him to juggle life as both faculty and parent. Some student researchers redirected their efforts toward fighting the pandemic while dealing with isolation and the inability to get back into the lab. Another handled challenging coursework while supporting her mother, among the first in Chicago to battle COVID-19.

Friendships at the McCormick School of Engineering proved crucial even as the more routine challenges of life—like home improvement and settling into an internship—became doubly complicated during a period of fear and loneliness. Social distancing and travel restrictions made communication more difficult yet even more important.

Some students in Evanston have been an ocean or more away from family for months. Others returned home and found themselves hours behind or ahead of their online classes. The myriad other challenges our students faced have proven as diverse as the student body itself.

While the community has been separated, the sense of support remains intact. We honor the McCormick community by sharing a few of their stories.

BRIAN SANDALOW



JAMES HAMBLETON

**Louis Berger Junior Professor,
Assistant Professor, Civil and Environmental
Engineering**

JH: In a word, it's been chaotic. We're juggling everything. I'm a parent and a teacher and a researcher. It's the collision of those worlds constantly, and we've been on top of each other since March 2020.

Now, however, we have a space where each of us can be on our own.

We methodically took apart our deck in the summer of 2019 and set the lumber aside, intending to build something with it. Then the pandemic struck, and we realized we could really use a separate physical space.

My wife, Rachel, suggested we build a tiny house, and that's what we did. We thought it was going to be a playhouse, but as we started to plan it, it was very clear that this would be so much more. It's our Zoom room.

Our two kids love to play in there, though the grown-ups probably use it more. It's nice to have privacy and focus. I teach classes and hold meetings there.

It's funny how this project at home resonates in my professional life. I'm now actively looking for ways to do other things like this—doing more with less and being creative—on a bigger scale.

Photography by Steven E. Gross



ANDREW HUNT

**Chemical and Biological Engineering,
PhD candidate**

AH: I work in Professor Mike Jewett's lab. My PhD has been focused on protein-protein interactions, and since the pandemic started, I've focused on the way coronavirus gets into human cells through that mechanism. I had the skills to work in this area, so we reached out to collaborators at the University of Washington who had a project in progress. They were trying to develop protein-based coronavirus inhibitors.

After closing the lab for a few weeks in April 2020, we were approved to work on site again. The lab is on the larger side with normally around 30 people working, but when we restarted, it was just me and two other people working in the space. It was a lot of work and a lot of long days. Now, with more people on campus, we take shifts to stay safe. The feeling of community in the lab and the ability to connect with people has been very helpful.

Professor Jewett worked hard to make sure we are working in a safe environment, and he has been particularly supportive throughout the pandemic. He encouraged me to apply my work pre-pandemic to pandemic-related issues. It's progressed significantly as a result.

The work provides me a concrete outlet, and that helps keep me sane. I can do an experiment that might help somebody stay alive.

And, like a lot of people during the pandemic, I've discovered it's fun making bread.

Photography by Steven E. Gross





EMMA ZAJDELA

**Engineering Sciences and Applied Mathematics,
PhD candidate**

EZ: It was super scary in March 2020. My mom got COVID-19 at one of the first superspreader events, one where she works. She ended up in the hospital for 10 days. She'd been training for a marathon the year before and was in none of the higher-risk categories.

It was the very beginning of the pandemic, and we knew so little. I couldn't go see her. I could call her on the phone. Sometimes I'd call and she'd be completely out of it. There was very little information all around.

I had to quarantine because I had been in contact with her. I'm lucky I never got it. Fortunately, I can do my research from home. It was a welcome distraction from my family situation.

My department is very understanding. My adviser is Professor Daniel Abrams. He was really wonderful. I was taking a course with the chair of my department, Professor David Chopp—High Performance Computing. It's legendary for being a tough class. He was very accommodating, and I took an extension. Everybody was super supportive and sweet. It's a great community.

Now, my mom is much better, but she has long-term effects and still has tons of appointments with doctors. We just celebrated her fiftieth birthday together—everyone got tested before it. We surprised her with 40 or 50 friends from around the world on a Zoom call.

Photography by Maher Said

WONIL SOHN, '21

Biomedical Engineering

WS: I stayed in Evanston until the middle of May before returning to my family's apartment in Seoul, South Korea. Because of the 15-hour time difference, I've been taking classes either late at night or really early in the morning. Luckily most of my classes for Fall and Winter Quarters didn't require in-person attendance.

I'm hard of hearing, with a severe-to-profound high-frequency loss. My hearing loss for low-frequency sounds is mild to moderate. I use hearing aids, but when I'm in in-person lectures, it's hard for me to hear when somebody asks a question.

Now it's all online and people have their microphones on, so ironically that makes it easier for me. I use an app called Live Transcribe that provides a transcription of conversations. I rely on this a lot. With this app, I can understand lectures better than I might during in-person classes.

In online project meetings with multiple people, sometimes it's hard to know who is talking to whom. This is where I have a slightly harder time. Everybody is really understanding and respectful when I ask for something to be repeated.

Professor Jonathan Rivnay and his post-doc researcher Bryan Paulsen have been incredibly supportive. When my summer plan was derailed, they helped me figure out what I could work on remotely.

And, I'm tired. I take lots of naps. Naps are very important.

Photography by Sewon Sohn





LAUREN LOPEZ & MARYAM KAZEMZADEH-ATOUFI

Materials Science and Engineering, PhD students

MK-A: We live across the hall from each other, about two blocks from Tech. Both of us had to do remodels of our condos during the pandemic.

LL: I had walls with water damage, and there was mold. Before the pandemic started, I'd planned for the work to take place over the summer. That got delayed. It finally got fixed in November. Pretty much everything was moved out of my apartment, and I was sleeping on my couch in the center of my studio. When the workers were here, I had permission to go into my office at Tech to work. Dust was everywhere.

MK-A: At the beginning of the pandemic the unit below mine was for sale, and someone said there was water damage. They explored my unit and tore open a hole in the wall on the other side of the bathroom to see if there was a leak. The contractors thought that could be fixed in a day, but the repair turned out to be much bigger. Because of the pandemic, the work wasn't done for many months. I had to do a rip-out and remodel of the bathroom.

My partner and I didn't have a working bathroom, so we got an Airbnb for a week and a half. Then I biked back home to manage all of the workers every day. It was stressful. Being a grad student and dealing with a renovation would be tough enough. Doing it in a pandemic was really challenging.

LL: It's helpful to have a neighbor to bounce things off. There was some drama with neighbors not being very happy with work being done in a pandemic. Sometimes, I'd go over to Maryam's apartment and just bake cookies, talk, relax.

MK-A: Lauren gave me a stress-relieving bubble bath kit. It's been helpful to have Lauren across the hall and to have support from Wellness Coaching, a program from Health Promotion and Wellness that is a unit of the NU Health Service.

LEEN ABDUL RAZZAK, '23

Biomedical Engineering

LAR: I was living at 1838 Chicago residence hall. With finals about to start and the pandemic heating up out of nowhere, my friends suddenly began leaving and heading home. My sister was texting, "Come back before they close the borders of the UAE," but I knew I couldn't do well with a 10-hour time difference and jetlag before finals. Suddenly, my dorm was empty. It was just me, my RA, and maybe one other person. I had just transferred in the fall and met people in my classes doing group projects. Now they were gone.

During spring, I spent most of my time in my room, reading and making food. It got lonely, but I stayed connected to people I met in classes by texting. I really got close to some by checking on homework, studying, and learning materials online. I fell in love with walking on campus.

I had started in Professor John Rogers's lab in January 2020. I applied for three research grants. Professor Rogers was so supportive. I received one grant. Since labs were closed to undergraduates, I needed to change to a project that I could get done. I was introduced to Andreas Tzavelis, a PhD student processing COVID-19 data, and he needed help with signal processing data. So, I switched topics for my grant, then taught myself how to signal process by watching videos online.





LINUS OKOTH, '23

Computer Science

LO: When campus closed down, I left to stay with relatives in Lansing, Michigan. I had plans to go home to Kenya, but my flight had a layover in Europe, and travel from the United States to Europe wasn't allowed. So, I came back to Evanston.

It's been very difficult. This is the first time I've spent more than one month away from home. It's been even more stressful because I can't frequently communicate with people back home. My immediate family is in a rural part of Kenya, and that makes getting hold of them challenging. Internet access in Kenya isn't very good.

However, there have been highlights—my internship with Facebook being one. I developed an Android mobile application that's like social media for developers, where you can share your work and receive comments. While I definitely would rather have worked there in person—I was in virtual meetings up to eight hours a day—the experience reaffirmed my interest in software development as a career.

I've had good support. McCormick's Engineering Career Development helped me navigate my future options. ECD's Tameca Blossom-Lyons helped me secure my Facebook internship and even navigate the process of getting work authorization.

Also, I led a class on front-end web development in January. Professor Sarah Van Wart helped me. It meant a lot to turn to someone with her experience to seek feedback on how to improve the class.

Photography by Steven E. Gross