

A Step of Faith to Johns Hopkins Applied Physics Lab

Sarah Moss

Dordt College, sarah.moss@dordt.edu

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Johns Hopkins Applied Physics Lab (APL) states that its purpose is to make critical contributions to critical challenges. Ken Verbrugge says he works to identify the critical challenges and to find computer scientists that can work on the critical contributions.

A STEP OF FAITH TO JOHNS HOPKINS APPLIED PHYSICS LAB

In January of 2013, President Erik Hoekstra visited Grace Christian Reformed Church in Burke, Virginia. A small group of Dordt graduates who lived in the Washington, D.C., area had gathered to hear Hoekstra share his vision for what Dordt might become.

At the end of the talk, Ken Verbrugge ('69), a program manager at Johns Hopkins University Applied Physics Lab (APL), raised his hand. "I've had many people come from Dordt to talk with me," he said. "I've asked for résumés, but I haven't received any yet."

Hoekstra said he would remedy that. On his flight home, Hoekstra contacted Kari Sandouka, a computer science

professor at Dordt, about the internship opportunities at Johns Hopkins APL in Laurel, Maryland—how Verbrugge was interested in computer scientists with a passion for coding.

Some time later, Sandouka brought up the internship in her client server programming class, and

Calvin Leader ('14), who was a junior at the time, took notice. The name "Johns Hopkins Applied Physics Lab" stuck in his mind, so Leader did some

online research and quickly realized the internship wasn't for the hospital that most associate with Johns Hopkins.

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"The website talked about air missile defense and government-related opportunities, which I thought was interesting," says Leader. He learned

that APL, the nation's largest university-affiliated research center, works with the Department of Defense, NASA, National Security Agency, and others to provide solutions to national security and other scientific challenges.

Sandouka put him in contact with Verbrugge, who set him up for a phone interview with a section supervisor. By May, Leader flew out to Maryland to begin his summer internship at APL. The following year, he landed a full-time job there.

Since Verbrugge first reached out to Hoekstra, three Dordt graduates have found their way to APL. Madison Moss ('15) runs Splunk, a data analytics platform for machine data; he is one of 62 people in the world who are part of the Splunk Trust, making him an expert in the platform. Jay Timmer ('18) is a software engineer who works on projects related to cybersecurity, machine learning, and computer vision. Leader, who is also a software engineer, focuses on producing visualizations to help data analysts make sense of data related to social media, cybersecurity, and machine learning.

All three had internships that led to full-time positions at APL, which employs more than 500 computer science and engineering interns from institutions like MIT, Johns Hopkins, Virginia Tech, and Georgia Tech. When he spoke with those who supervised Leader, Moss, and Timmer, Verbrugge heard nothing but praise.

"I remember talking with Jay's supervisor, and he told me that, of his five interns, Jay was his top. I asked him why, and he said, 'If I asked Jay to do something, he always did it. He stayed late if he needed to. I could count on him to complete the project on time and do the research necessary to help along the way. If he didn't know the answer, he could find it,'" recalls Verbrugge.

Verbrugge says Timmer, Leader, and Moss have a strong work ethic, something he attributes to the fact that all three hail from the Midwest. Leader and Moss say it's easy to work hard at a place like APL because of the variety and importance of the work they do.



JOHNS HOPKINS APL

Founded in 1942 to aid the United States during World War II, Johns Hopkins APL employs more than 6,000 people and is located on 453 acres with more than 20 major buildings.

"APL is a large organization, which gives diverse work opportunities," says Leader. "Even as an intern, I could tell that there were plenty of opportunities to shift within the organization—from working on cybersecurity to missiles to space exploration."

team has saved thousands of American lives on the battlefield," says Verbrugge. "It's a thrill to have that kind of impact on society."

Verbrugge began his career as a teacher; originally from Edgerton, Minnesota, Verbrugge picked Dordt because it was close to home and was a teaching school. Then, the Vietnam War broke out. When the government stopped all deferments, Verbrugge heard from the state of Minnesota that he would likely be sent to Vietnam.

"I saw a Navy recruiter in Sioux Falls, and he told me that I could enlist in the officer program, which was only three years," recalls Verbrugge. "I got into intelligence work during that three years, and I liked that better than teaching middle school kids."

Eventually he went back to school, where he earned a bachelor's degree in engineering, a master's degree in electrical engineering, and a master's degree in public affairs. He continued serving in the navy and traveling the world, spending years in Spain, Portugal, and Japan. After retiring from the National Security Agency in Maryland, he began looking for another job opportunity. That eventually led him to Johns Hopkins APL, where he says his supervisor hired him "because he could

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— Jay Timmer ('18)

"We're part of an organization that's doing vitally important work," says Moss. "We do projects with NASA and Department of Defense that are literally changing history and are critical to national security. It's great to be part of that."

Having worked at APL for 19 years as a program manager, Verbrugge has seen firsthand the importance of the work that APL employees do through cybersecurity, data analysis, machine learning, and more.

"I've had a government agent that I support look me in the eye and say, 'Your

see that I could make a difference.”

Verbrugge enjoys leading and mentoring people in his role as program manager. He also appreciates being able to reconnect with Dordt through people like Leader, Timmer, Moss, Sandouka, and Hoekstra.

“Dordt didn’t have a computer science program when I was a student, and now it does,” says Verbrugge. “When I spoke with Hoekstra in 2013, I was curious: How good was this computer science program? I’ve been pleasantly surprised by the students who have interned and now work at the lab, and by the work that Kari Sandouka and others do with the program.”

Timmer is thankful for the opportunities he had to learn and grow while studying at Dordt.

“The field of computer science moves extremely fast, and it can be hard to keep up with emerging technologies,” he says. “Dordt prepared me to know how to learn and adapt to these new technologies in an efficient manner. In software development, being a lifelong learner is extremely important, and Dordt prepared me for that.”

Moss encourages Dordt students in engineering and computer science to consider an internship at APL.

“If you have a chance to apply for an internship, take it,” he says. “You’ll work alongside some of the smartest people in the nation. An internship is a great way to get your foot in the door and to learn.”

Leader is grateful he took a chance and moved from his hometown of Crofton, Nebraska, to Maryland.

“I can’t thank Ken Verbrugge enough for giving this opportunity to me. He and his wife Judy have been hugely helpful, from helping me find a place to live to introducing me to people around the area. Now I’m in a great position just by getting out of my comfort zone and taking a step of faith. I ended up going somewhere I wouldn’t have dreamed of when I started at Dordt.”

SARAH MOSS ('10)

BUILDING DEFENDER NATION THROUGH THE ALUMNI COUNCIL

Each fall and spring, you’ll see an energetic group of alumni visiting Dordt to learn about new things on campus, to provide encouragement, and to give valuable feedback. They sit in on classes, interview students for the Alumni Association Scholarship, review pages of alumni award nominations, and advocate for bringing back homemade pies served on Sunday in the Commons (I hear this was a tradition on campus long ago!). They listen in on updates from academic departments on campus, celebrate the exciting things happening, and reminisce about those “good ‘ol days.”



These members of Dordt’s Alumni Council come from communities across North America and represent geographic locations where Dordt alumni and parents live. Drawing on their diverse backgrounds and graduation years, their purpose is to advise the Alumni Office and hold us accountable to Dordt’s mission while

also serving as a link between Dordt and our alumni.

These alumni are an important part of our team and are often called our champions for the work they do in their communities. They share their experience with prospective students and encourage them to attend Dordt. Alumni Council members help us organize events in their communities. They assist graduates new to their communities in finding housing or recommend Dordt students for internships in their businesses.

Dordt University Alumni Council, thank you. I’m grateful for your service to Dordt’s alumni and parents and for the way you promote Dordt. You’re building the Defender Nation community in your churches, schools, and workplaces.

As one council member put it, “We’ve got to also be number one in alumni engagement!” I couldn’t agree more.

Alicia Bowar

ALICIA BOWAR ('05), ASSOCIATE DIRECTOR OF ALUMNI AND PARENT RELATIONS

