

CASE STUDY

Knovel[®]

University of Washington

Expanding breadth and depth of engineering knowledge



SUMMARY

Zachary Brown, former student of University of Washington-Seattle, shares his perspective on how Knovel can help students and how it empowers him to do his work.



ELSEVIER

“Knovel for me is an irreplaceable resource. It helps me grow the breadth and depth of my engineering knowledge.”

— Zachary Brown at University of Washington-Seattle



ZACHARY BROWN

Education:

Georgia Institute of Technology, 2011
Bachelor of Science, Civil Engineering

University of Washington-Seattle,
Expected June 2014
Master of Science, Civil Engineering

Experience:

Zach is currently a structural engineer working on future derivatives of wide-body commercial transports.

Zach considers himself a “structures” guy through and through. He specialized in structural analysis and design in undergraduate education and is now diving deeper into structural engineering in his graduate coursework. At work, he is always studying up on the latest structural developments in the industry as well as growing his knowledge base. Bottom line, he loves structural engineering.

Bridging the skills gap through lifelong learning

“Don’t ever stop learning.” That’s the advice structural engineer Zach Brown offers not only to students, but also to every science and engineering professional—beginners and veterans. “Just because you graduate and have a degree doesn’t mean you’re done,” he says. “Engineering is a field of constant innovation and new development. New technologies emerge all the time. To stay current, you’ve got to read the news, you’ve got to read articles, read new texts that are published, all different kinds of information.” And one of the key resources Brown uses to navigate this terrain is Knovel—the cloud-based technical resource the young engineer likens to a “one-stop shop” for all the engineering information he needs.

Enabling on-the-go research

Brown first learned about Knovel from the aerospace firm he joined after graduating from the Georgia Institute of Technology. One day at work, he was carrying in some of the heavyweight, hardcopy resources his Georgia Tech professors recommended, when one of his fellow employees told him to ‘check out’ Knovel instead. “Now, I’m on there every day,” he says.

Does Brown believe his undergraduate training adequately prepared him for an engineering career? “Yes and no,” he replies. “Universities do just enough, so that you have a really firm understanding of the fundamentals, but that’s all they can cram into four years. They give you enough to be successful, enough to build upon. And it’s up to you to continue building.”

In other words, where many of today’s employers see a “skills gap” that keeps today’s engineering graduates from being able to succeed straight out of university, Brown sees a communication disconnect between what employers are expecting and what universities are able to deliver. The twenty-something has no illusions about the need to stay on top of developments in science and technology. He just thinks it comes with the territory.

Providing current, reliable and searchable information

Of course, the young engineer faced a steep learning curve. With a degree in civil engineering, Brown didn’t have the background his peers with aerospace experience had. “I’m familiar with building and bridge architecture, but I had to learn a lot about airplanes in order to get up to speed.” Having all of Knovel’s reliably vetted and completely searchable technical information made a big difference, especially when he compares Knovel to the resources he used in his undergraduate years.

As an engineering student at Georgia Tech, Brown would use hard copies of library resources or rely on Google for “some random thing someone published.” Other sources included Wikipedia, where he could “only hope what he found was correct.” And when he would take the time to go to the library, the content, while reliable, was often outdated. Knovel offers Brown a lot more.

The aerospace professional describes the information Knovel provides and his ability to access that information from anywhere as “empowering.” It’s a power Brown isn’t keeping to himself.



“The key is the easy access. I can consume as much engineering knowledge as I want anywhere.”

– ZACHARY BROWN
UNIVERSITY OF WASHINGTON—SEATTLE

Although he only graduated in 2011, with a B.S. in Civil Engineering with an emphasis in Structural Engineering and Mechanics, Brown has already begun mentoring future graduates to help them navigate their transition from academia to professional engineering. “A lot of people feel they have to have a guy who’s been in the industry for 20 years telling them what they need to be doing,” he says. “It’s also helpful to have the perspective of someone who was just in the same shoes that they are now. To tell them that it’s going to be all right and that they will get through it.”

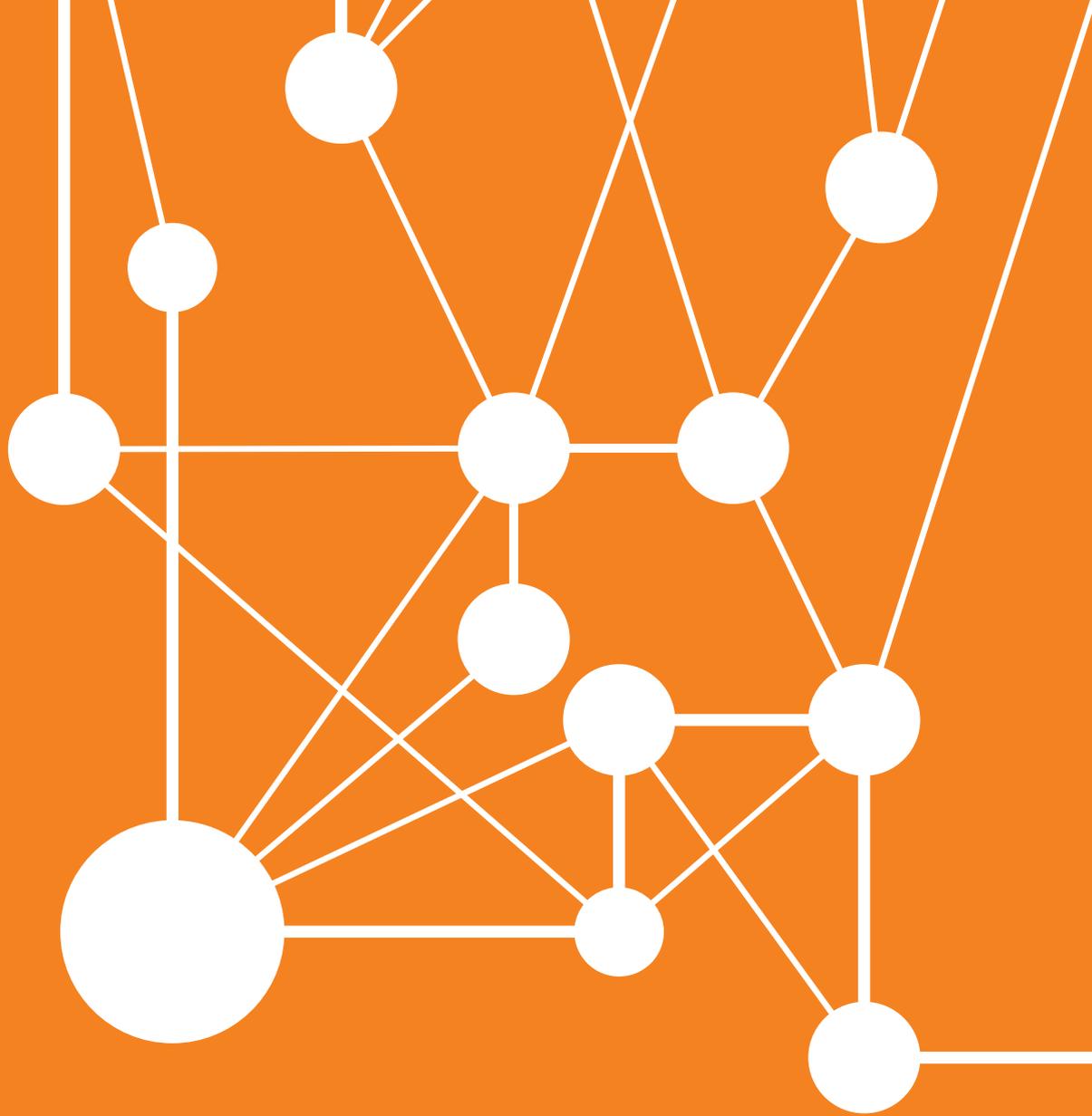
When Brown took on his first mentee—an aerospace major—he had moved 2,700 miles away from Georgia. Yet it was Brown’s recent job search as much as his brief background as an aerospace professional that made their phone conversations so fruitful. “I answered questions he had about how he could beef up his resume, what he should be thinking about as far as his college plans,

his interests, what he thought he might want to do with his life and how that tied into moving forward as a professional. And since I had just gone through that whole process myself, I had gotten really good at figuring out what I needed to put on my resume to be the next person a company had to hire.”

Bridging the gap between education and career

Brown sees mentoring as an essential element in closing, not just the “skills gap,” but the communications gap between what employers are expecting and what universities are able to deliver. And he sees Knovel as a vital tool to achieve that goal. In his words, Knovel is “an organization that’s involved in education, not just in the university sense or even after that, but in the sense that Knovel bridges that gap between education and career.”

Zach Brown is only in his twenties, but he already knows that the struggle to bridge the knowledge gap doesn’t really have an end. There will always be more to learn and more to discover. Brown, for his part, is unfazed by the challenge. He knows Knovel will be there to support him, providing the information he and his peers need to stay on top of new developments in the fields of science and technology.



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