

Just as Smart as Everyone Else

Q & A with Sarah Shepherd, mechanical engineer, AME Consulting Group

If the thought of maximizing energy efficiency in big buildings lights you up, then mechanical engineering might just be the path for you. Victoria resident Sarah Shepherd secured her current position as a mechanical engineer with AME Consulting Group before she even graduated from the University of Victoria in April 2018, and she's loving every minute of it.



While in her engineering undergrad, Sarah completed four co-op work terms: a double-header with BC Hydro, a stint at UVic's computer help desk, and, most recently, an international work experience at Universidade Estadual Paulista in Brazil. Not only did she expand her skill set through co-op experiences, she also headed up the Engineering Students Society as its president during her time at UVic.

We sat down with Sarah to ask her a few questions about her path in the tech world.

Q: *Tell us a bit about what you're doing at work.*

A: I recently started working at a mechanical consulting company in Victoria. The work I'm doing is energy modelling, which involves looking at the design of proposed or sometimes existing buildings, to determine their energy usage. Typically the buildings we analyze are large commercial or residential buildings. There are several components to creating a successful model – things like the building envelope, construction materials, mechanical equipment, etc. They're all important to figuring out the energy model for a building.

Q: *What were some of your challenges as a woman in this field while you were in school?*

A: I didn't experience a lot of blatant sexism, fortunately. Most of the things I noticed were smaller, less visible barriers to belonging, but still significant. For example, in group projects I'd often end up being the person writing the report instead of the one doing the technical work. By my 4th year I had figured out that I needed to be much more assertive if I wanted to have the chance to do the technical work. I'd say microaggressions were the most frequent thing. It wasn't unusual for me to be spoken over or sometimes ignored. I actually learned more about how to deal by reading about other women's experiences. When I

recognized I'd been taking a backseat in group work, I started speaking up to make myself heard. I learned to distance myself from the report writing in group projects and instead say, "I'll do those calculations." I realized I was just as smart as everyone else, and this helped me take myself more seriously.

Q: *What kind of supports — financial and otherwise — could make a difference in keeping more women in the field?*

A: I'd say high school outreach is a pretty important one — and middle school and elementary as well. Ensuring that girls know from a young age that they're just as qualified as anyone to pursue engineering is definitely important. It would be good for girls to see more examples of women in STEM who are working already. As a child, when you look around at the jobs that are out there — in movies and in the wider media, for example — you don't tend to see women doing STEM-related jobs, so you don't really consider it.

Certainly scholarships would be helpful as well. I had a friend in high school (also a woman) who started in engineering with me at UVic, but she was forced to drop out of her first year due to financial issues.

Lastly, and this one might be tougher, but we also need to engage men as well. Often, though not always, the problem can lie with their actions and habits — and they may not even be aware of what they're doing.

Q: *As you see it, where are the biggest opportunities for women in tech?*

A: I think one thing that's super important for women to consider is finding good mentors. Many women who've been working in tech for a while are willing to help the younger women, as the experienced ones don't want the younger ones to have to deal with what they've dealt with. It's important to have that support when it may be lacking elsewhere. I didn't have a woman mentor myself, but I did go to events where women in tech were speakers and panelists, so I saw some modeling there.

Thanks, Sarah. You're a bright light shining for other young women who are taking the tech path.

Stay posted for more Q&A profiles over the coming weeks. And spread the word about the *Women in Technology/Aboriginal Women in Technology Scholarships* offered by the Irving K Barber BC Scholarship Society www.ikbbc.ca These two new scholarships present a real opportunity to support women's advancement in the fields of engineering, math and computer science.