

SUCCESS STORY



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FUEL Biomedical is an experienced team of technology development professionals and entrepreneurs who provide design, engineering, and manufacturing services to bring products from a concept to a market-ready stage for a variety of clients. They focus on human health, including biomedical devices, environmental, and clean energy solutions. John Person, Founding Partner and Senior Engineer at FUEL, says, “As an employer of young engineers, we enjoy that moment when, usually elbows-deep in assembling a funky new prototype, they say, ‘This is what I always thought engineering was going to be.’ Making cool and practical solutions that help people is why we work in product development, and we hope FUEL can continue to provide that spark for young professionals.”

This summer, Michael Schultz and Sunaina Rangarajan, two University of Calgary Mechanical/Biomedical Engineering students, got to experience that spark. In addition, Michael is quick to say, “Everyone I interacted with on the team was passionate, knowledgeable, and approachable, which made me confident that I would be joining an awesome team to learn from and collaborate with.” Sunaina echoes the sentiment.

Michael and Sunaina both worked on a variety of tasks this past summer, from ideation to implementation, and in the process, developed working knowledge in specialized engineering design tools such as CAD, Onshape, 3D printers, waterjet cutters and other heavy machinery for



Michael Schultz & Sunaina Rangarajan

prototyping and fabrication purposes. Getting hands-on experience was extremely valuable to Michael as directly fabricating the parts he designed gave him a lot of insight into how his designs can be changed to improve the ease of manufacturing and assembly, and experience of the improvement process. Sunaina points out the opportunity to hone her time management and project management skills. Both students found themselves constantly moving between the office and the machine shop. It sounds as though no two days were the same!

With FUEL being so busy this summer, Person notes that it was important for FUEL to bring on two students to work together. The team found that “the collaboration and team effort of having two new employees start together helps everyone find their strengths and complement each other to get the work done. It also fits well with the approach students are already familiar with in their studies, where they must work in teams and groups to accomplish an assignment.”

“As a team, Mike and Sunaina excelled at the tasks they were given, worked together to solve problems and meet important milestones and deadlines. They were both able to work independently on tasks and came together to help one another when needed.”

Beyond the immediate workload help, students help FUEL assess the roles and gaps in their current structure. Hiring students is a win-win, and FUEL has always been a supporter of student learning and professional development. Person notes that “WIL funding is important because it helped us offset the time and cost to bring on temporary student employees. Without the funding available, it would not have been possible for us to bring on two students for the term, so we are grateful to have that opportunity.”

Michael and Sunaina both left their work terms and returned to classes inspired by seeing how their direct contributions helped make multiple innovative biomedical ideas a reality and getting first-hand experience of being part of the innovation that directly impacts the healthcare industry.

Michael tells us why WIL funding is crucial to the future of the life sciences industry in Alberta: “One major takeaway from my work term with FUEL Biomedical is that you don’t need to leave Alberta to be involved with exciting work at the forefront of biomedical innovation. The perception is that



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to find opportunity as a biomedical engineer you need to move to a bigger hub like Toronto, California, or Europe. However, this summer I was amazed by the number of local companies FUEL collaborates with that are doing incredible work in a variety of biomedical applications of which most people are completely unaware. Industry initiatives like the BioAlberta WIL Voucher are such an important part of helping to grow and increase awareness of the biotech industry in Alberta, by giving students like myself more opportunities to work with amazing local, biomedical companies like FUEL.”

Sunaina is excited about future prospects: “Going forward, I want to use my knowledge and skills to contribute to the field of healthcare with innovative engineering solutions. Working with FUEL, I have been able to develop a better understanding of all aspects of managing a business including finance, project management, patent work, quality management, machinery maintenance and operations, etc. I believe this well-rounded perspective will help me become a successful entrepreneur in the future!”

We can’t wait to see what’s next for FUEL and these talented students!

WIL VOUCHER

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