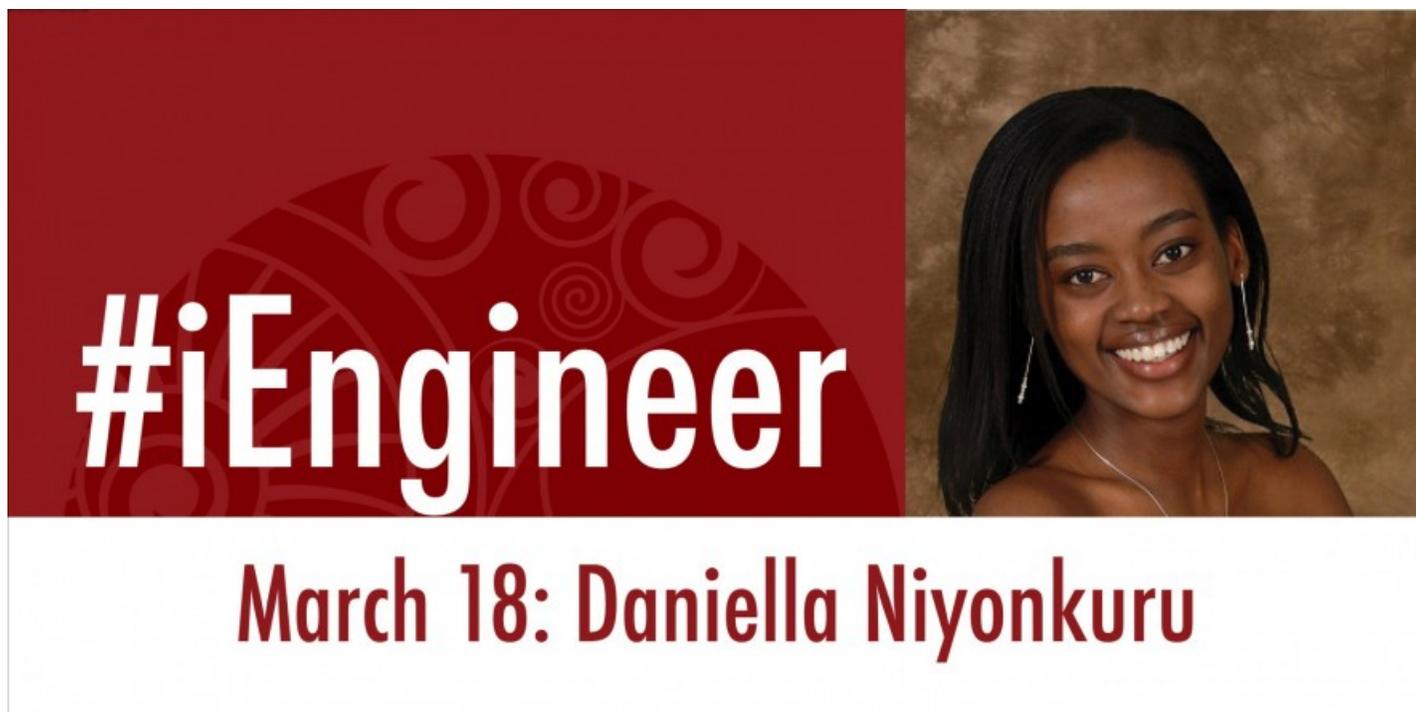


March 18 – Meet Daniella Niyonkuru



"#iEngineer because the world is full of problems waiting to be solved!"

A Conversation with Daniella

What is your current job?

I am a Master's student in Electrical and Computer Engineering at Carleton University, and hold a research assistant position at the Advanced Real-Time Simulation lab. I build software for embedded systems based on a novel approach. Embedded systems are tiny computers that shape our world; they also run critical software! My work is about using formal methods and simulation to develop more safe and reliable software for embedded systems.

What is your favourite part of your job?

My favourite part is definitely being able to work on an exciting problem, and working on solutions that can basically change the world. It's challenging to work on existing problems and come up with novel effective solutions. Simultaneously, every little success along the way is rewarding because you are basically defining new ways to build cutting edge systems and improving existing ones. Working on a subject that has life changing potential is amazing and keeps me going.

How has your degree in engineering helped/benefited your career?

My engineering degree gave me the solid foundation that I needed to tackle various problems. Plus, being in a co-op program helped me apply concepts learned in classroom, and gain relevant work experience.

What surprised you about a career in engineering?

1. Few women! There are few women in industry, academia and classrooms. We need to change this.
2. You never run out of challenges, and there is always something new to learn.

What has been the most enjoyable or interesting project you've been involved in?

It's hard to choose! One of my favourite projects was developing independent software that was supposed to run on multiple full flight simulators. My solution was supposed to monitor flight displays and detect specific changes in less than a millisecond; and, it did! I was able to build that software, and it is still running on multiple gigantic flight simulators.

Why did you decide to pursue a career in this field?

Interestingly enough, I never thought about engineering throughout high school. I was considering medicine, and then one day, I read about Computer Engineering while browsing majors. I felt like I could do anything with this degree, and it would open many doors. I was right!

What is your vision or dream for women in engineering in the next 25 years? How will you help support this?

My vision for women in engineering in the next 25 years is more women: More women in industry, academia and classrooms. It is also about reaching a place where being a woman in engineering is natural; a place where implicit biases towards women in STEM have been eradicated.

With CU-WISE, we organize outreach events to introduce young girls to engineering through hands-on activities. Also, I usually volunteer to talk about engineering and research to prospective students. I will keep spreading the word, mentoring girls, and being an engineering ambassador.

What advice do you have for young women pursuing a career in your field?

Keep going! Be Bold, Be Positive and Change The World. You might be a minority in your field but it does not make you any less better! Take up the challenge, think big and keep persisting. Always believe in yourself especially when no one else seems to! Make things happen!

Daniella's Biography

Daniella Niyonkuru is an Electrical and Computer Engineering master's student at Carleton University. She holds a Bachelor of Engineering in Computer Systems from Université du Québec en Outaouais. Daniella has been the

recipient of multiple awards including the prestigious Governor General's Academic Medal, and two Ontario Graduate Scholarship. She is a research assistant at the Advanced Real-Time Simulation lab (located at Carleton University's Centre for advanced Simulation and Visualization), and also an executive member of CU-WISE, the Carleton University Women In Science and Engineering group.

2 thoughts on “March 18 – Meet Daniella Niyonkuru”

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