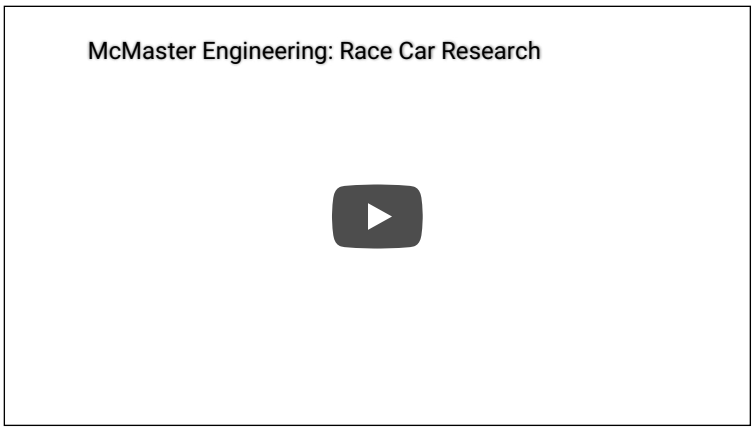
Monika Jaskolka, PhD Software Engineering student

"I had two things in mind when it came to choosing a school: I wanted to study software engineering specifically, and I wanted my research to be practical." - **Monika Jaskolka**



Research: As a research assistant, Monika is part of a team of engineers working on the next generation of hybrid vehicles for Fiat Chrysler Automobiles. Monika's role is to refactor code, or restructure existing computer code, in vehicle parts such as transmissions to make it work better without changing how it behaves within its complex software ecosystem.

Why her research matters: Every time a motorist moves from park to drive, that's a decision your car's software is making. Different sensors are balancing input from the vehicle and from the driver. If a motorist opted to move to park while driving at highway speed, for example, the car's software wouldn't allow it. Monika's work helps keep people safe on the road.

The world needs software: Software is everywhere. It's in our cars, planes, smartphones and even our fridge. A higher end car, for example, has more than 100 million lines of code. As the world becomes more connected and complicated, the need for engineers who understand both software and systems is increasing. "As a doctor you work on a patient-by-patient basis. Whereas here, if you're working on a software project like I am, you're affecting millions of vehicles and the safety of people, too. You're in such an interesting position where you can affect people's lives in a good way."

A passion to program: Growing up, Monika loved math, science and art. She toyed with the idea of becoming a mathematician or a doctor but then she discovered the world of coding and computer programming and was instantly hooked. "It was an aha moment. I can use all my passions and leverage them when I program. I can make programs and different applications in software for any number of domains."

Education and real-world experience at McMaster: Graduate studies at McMaster Engineering offered Monika exactly what she was looking for: Top-notch education, practical real-world experience and world-class faculty who offered her quality mentorship. McMaster's research is helping to ensure software going into a range of items from pacemakers to car brakes to nuclear power plants is safe. "I had two things in mind when it came to choosing a school: I wanted to study software engineering specifically, and I wanted my research to be practical."

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