Karen Hildebrand has over 15 years of experience in Data Science across a variety of industries, including healthcare, financial services, retail, manufacturing and most recently agriculture.

Having grown up on a family farm in Manitoba, Karen pursued her education while on athletic scholarship, completing an undergraduate in Management and Marketing with a minor in Information Systems, as well as a Masters in Information Systems specializing in Data Management. After completing her Masters, and entering the workforce as a statistical research partner to a publishing epidemiologist and practicing surgeon she found a passion for artificial intelligence. This led to completion of her doctorate degree, specializing in Machine Learning, and working for organizations developing the foundations for IoT. In 2017, she co-founded the startup Farm Femmes, focused on the digital transformation and digital resiliency of family farming operations.

When she is not at work she enjoys travel, an active lifestyle and spends most of her time in MN cheering on her 2 boys at hockey rinks, mountain bike and running races. She also enjoys applying her data science expertise through volunteer activities in healthcare and agriculture, two causes close to her heart.

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**Talk Abstract**

**Farm to Fork: The stats of food production**

Agriculture and technology are growing together to produce the food that ends up on each of our forks. As the adoption of precision agriculture continues to shape sustainability, productivity and profitability of the family farm statistics and interpretation of big data has become increasingly common in the tractor cab and the kitchen table.

This talk will highlight the ways in which statistics is driving differentiated decision making on the farm, from fertilizer application to irrigation, cattle movements to dairy production. Together we will focus on opening a discussion to how farmers are utilizing traceability and sustainability to produce enough food for the world population. We will discuss how simple statistics to complex machine learning technologies are helping solve real world agricultural and health challenges - ensuring everyone has the opportunity to eat.