

Center for Socially Responsible Artificial Intelligence Seed Grant Spring 2023

Towards data privacy and security in the era of digital agriculture

- Anna Squicciarini, College of Information Sciences and Technology
- Paul Esker, College of Agricultural Sciences
- Primal Pappachan, College of Information Sciences and Technology
- Mladen Cukak, College of Agricultural Sciences

Abstract: To ensure that farmer data is safely collected and stored on our digital platform, we are proposing this project which would help establish a basis for future collaboration between the Esker and Squicciarini groups in the sphere of data privacy and security in the crop production domain. Through this project, we plan to achieve the following high-level objectives:

- 1. Preparation: Perform literature research and engage with relevant stakeholders to identify the security and privacy challenges of the agricultural domain
- 2. Development: Design the framework architecture and develop the necessary privacy and security modules for offering different kinds of data protection.
- 3. Deployment and Testing: Run simulations to test the framework under various settings and deploy the applications that are part of the framework in the field.