YUJI SAIKAI

https://yujisaikai.com | saikai@wisc.edu | (608) 571-9556
Department of Agricultural and Applied Economics, University of Wisconsin–Madison
427 Lorch St., Madison, WI, 53706

Education

- Ph.D., 2020 (expected)
  in Agricultural & Applied Economics with minor in Computer Science
  University of Wisconsin–Madison, USA
- Complex Systems Summer School, 2017
  Santa Fe Institute, USA
- Bachelor of Economics (Honours), 2014
  The Australian National University, Australia
- Bachelor of AgriCommerce, 2013
  Massey University, New Zealand

References

Paul Mitchell (Economics)
418 Taylor Hall
(608) 320-1162, pdmitchell@wisc.edu

Vivak Patel (Statistics)
1241 Medical Sciences Center
(608) 262-2539, vivak.patel@wisc.edu

Shawn Conley (Agronomy)
355 Moore Hall
(608) 262-7975, spconley@wisc.edu

Sheldon Du (Economics)
331 Taylor Hall
(608) 262-0699, xdu23@wisc.edu

Jun Zhu (Statistics)
1220A Medical Sciences Center
(608) 262-3720, jzhu@stat.wisc.edu

Thomas Rutherford (Economics)
323 Taylor Hall
(608) 316-4362, rutherford@aae.wisc.edu

Teaching Experience

- Lecturer on Deep learning in AAE722 Machine learning in applied economic analysis | Instructor: Sheldon Du | Summer 2019
- Teaching assistant in AAE706 Applied risk analysis | Instructor: Jean-Paul Chavas | Spring 2019

Research Fields

- Computational modeling
  Machine learning | Bayesian optimization | Anomaly detection | Agent-based modeling
- Applications
  Agricultural systems | Precision agriculture | Remote sensing

Presentations

- Agricultural & Applied Economics Association (AAEA) Annual Meeting, 2017
- Agricultural & Applied Economics Association (AAEA) Annual Meeting, 2018
- Agricultural & Applied Economics Association (AAEA) Annual Meeting, 2019
- North Central Extension & Research Activity (NCERA) 180 Precision Agriculture Technologies for Food, Fiber, and Energy Production, 2019
- American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America (ASA-CSSA-SSSA) International Annual Meeting, 2019

Research Papers

Machine learning for optimizing complex site-specific management

- with Vivak Patel and Paul Mitchell
- https://github.com/ysaikai/BOPA

Adaptive experimental design using Bayesian optimization to improve the cost efficiency of small plot field trials

- with Vivak Patel, Shawn Conley, and Paul Mitchell
- under review at *PLOS ONE*
- https://github.com/ysaikai/AEDBO

An agent-based model of insect resistance management and mitigation for Bt maize: A social science perspective

- with Paul Mitchell and Terrance Hurley
- to be submitted to *Pest Management Science*
- https://doi.org/10.1101/732776

A bandit algorithm for efficient on-farm research

- with Paul Mitchell
- https://github.com/ysaikai/MABPS

An agent-based model for promoting modest technologies

- https://github.com/ysaikai/TechAdoption