

KARL KUNZE

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Test



EDUCATION

2017
|
2023



Cornell University, Gradudate School

Field of Plant Breeding and Genetics

📍 Ithaca, NY

2013
|
2017



Cornell University, College of Agriculture and Life Sciences

B.S. Plant Sciences Concentration in Plant Breeding and Genetics,
minor in Buisness for the Life Sciences

📍 Ithaca, NY

Thesis: A multi-omics study for intra-individual divergence of the
distributions between mRNA isoforms in mammals



RESEARCH EXPERIENCE

2017
|
2020



Graduate Research Assistant

Measure components of weed competitive ability in organic naked
barley variety trials by using field trait phenotypes and aerial imaging
to measure barley vigor and growth over 4 trials and 2 years

📍 Ithaca, NY

Genome wide association studies of organic barley diversity panels
across 13 location by year field locations throughout the Northern United
Sates

Genetic by environmental analysis of winter naked barley variety trials
across 8 environments throughout the Northern United States

Evaluation of dormancy and pre-harvest sprouting across a winter
malting barley breeding population consisting of 450 lines over two
location and two years. A total of 5 timepoint assays were conducted in
2020 and 8 timepoint assays conducted in 2021.



PROFESSIONAL SOCIETIES

Crop Science Society of America(CSSA) student member -present

National Association of Plant Breeders (NAPB) student member -present

New York State Agriculture Society member -present

Cornell Plant Breeding and Genetics Graduate Student Association, Synapsis -present

Alumni of Alpha Gamma Rho, Professional and Social Agricultural Fraternity, Zeta Chapter

CONTACT INFO

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🆔 0000-0003-4548-1808

SKILLS

Highly proficient in operating and
data collection of a plant breeding
program including measurement
field phenotypes and integrating
genetic data to make selection
decision and publish original
research

Highly experienced in processing,
analysis, organization, and
experimental design of field trials
of a novel barley breeding program

Highly proficient in R statistical
software and Excel for data
management and analysis.
Moderate proficiency in using git
version control

Basic proficiency in Unix shell
scripting and command line.
Limited experience with Python
and Docker.

Highly proficient in flying
unmanned aerial systems for
imaging of plant variety trials and
breeding populations & Certified
FAA UAS Part 107 Remote Pilots
License. -present

Basic proficiency in Agisoft Pro and
Open Drone Map software
stitching applications.

Basic proficiency related to

This resume was made with the R package
[pagedown](#).

Last updated on 2023-05-02.



TEACHING EXPERIENCE

2014



Introduction to R Language for Beginners.

Instructor of R and Data Mining Training Courses at SupStat Inc.

📍 Beijing, China

2016

2017



Computational Biology and Bioinformatics.

Teaching assistant of GBS CB2-201 courses at UAB

📍 AL, USA



SELECTED PUBLICATIONS AND POSTERS

2014



Genetic and epigenetic signals are found predictive to the distribution of intra-individual divergence of alternative splicing.

Poster for 2013 International Conference of Genomics

📍 /Qingdao, China

Yu L., Chen B, Zhang Z.

2016



ESCRT-0 complex modulates Rbf mutant cell survival by regulating Rhomboid endosomal trafficking and EGFR signaling.

J Cell Sci. 2016 May 15;129(10):2075-84.

Sheng Z, Yu L, Zhang T, Pei X, Li X, Zhang Z and Du W.