

Riley Ellwanger

Senior Software Engineer · AgTech & Geospatial

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SUMMARY

Software engineer with roots in agriculture and conservation. Farm and ranch background, wildlife ecology studies, then computer science to scale impact on land and water through technology.

Builds full-stack web applications, geospatial tooling, imagery pipelines, and field data systems—tools that stay dependable through a busy growing season.

EXPERIENCE

Senior Software Engineer — Sentinel Ag

AgTech · Imagery, geospatial, nitrogen tools

Technology: Mapbox, Turf.js, Python, GeoPandas, GDAL, PostGIS, Celery, Redis, Docker, Azure DevOps

- Image processing pipeline—the backbone of recommendations and product.
- Planting, application, and harvest data turned into insights and recommendations.
- Management zones from yield, soil samples, satellite imagery, and other layers.
- Variable-rate fertilizer prescriptions from zones, samples, yield, or imagery—exported for monitor or pivot controller.
- Automated plot placement in representative field areas for nitrogen recommendations.

Freelance · Data migrations — Independent

- Migrated well monitoring and chemigation history from spreadsheets and legacy databases into a modern store, exposed through an API.

Senior design · Software engineer — University capstone (team of six)

- Shipped a web app for a cattle research facility to manage projects and replace spreadsheet workflows—historical records into structured storage and analysis.

Software engineering intern — Crete Carrier

Technology: Vue.js, Node.js, Express, SQL Server

- Rewrote legacy applications in a modern stack.
- Shipped an API-based load-bidding flow that replaced brittle web scraping—fewer moving parts when bids had to land on time.

FIELD EXPERIENCE

Conservation Technician — Nebraska Game & Parks

- Prescribed burns, weed control, food plots, and wildlife surveys—habitat work where plans meet weather, equipment, and wildlife.

Range intern — N-CORPE

- Reseeding, weed control, and grazing/reseeding plans on retired irrigated cropland restored to grassland for groundwater protection.

EDUCATION

Computer Science

Pivot from wildlife ecology to magnify conservation and agriculture impact through software.

Wildlife Ecology

Earlier studies grounded in outdoor work and land stewardship.