

Jesse Windle

Principal Data Scientist

Prairie Village, KS

Website: <https://windle.cv>

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GitHub: <https://github.com/jwindle>

Principal Data Scientist with 10+ years of experience building end-to-end analytical systems, prediction pipelines, and research-grade models.

EXPERIENCE

DYDX Capital

Chief Data Scientist

December 2024 – Present

Driving data-driven deal sourcing and investment prioritization by leveraging advanced data science and analytics to identify, evaluate, and prioritize high-potential startup opportunities.

- Built a data management system for tracking startups and founders
- Designed and deployed a multi-stage startup prioritization pipeline combining rules-based filters, agent-based reasoning, and NLP-driven prediction models

Consultant

October 2023 – December 2024

Early technical validation for DYDX Capital

- Validated feasibility of data-driven deal sourcing approach

Hi Fidelity Genetics / Technologies

Director of Data Science | Employee No. 1

May 2015 – March 2023

Built out and led the entire team, including engineering, systems, and data science.

- Raised \$2M+ in non-dilutive funding (ARPA-E, SBIR)
- Built the company's entire data science and analytical infrastructure from scratch
- Conceived and co-invented a device for in-field root growth measurement
- Developed data systems to manage large-scale plant phenotyping experiments
- Developed a novel 3D root growth modeling framework

Duke University**Visiting Assistant Professor**

July 2014 – May 2015

Taught introductory statistics and conducted research in Bayesian statistics

EDUCATION

Duke University

Postdoc in Statistical Science

July 2013 – July 2014

University of Texas at Austin

PhD in Computational and Applied Mathematics

July 2005 – May 2013

University of Nebraska - Lincoln

BS in Mathematics

July 2000 – May 2005

SKILLS

Statistics & modeling

Bayesian inference, Probabilistic modeling, Simulation, Optimization, State-space models, Hierarchical models

Machine learning

scikit-learn, PyTorch, JAX/Flax, Lightning, Pyro, NLP pipelines

Data & systems

Python, SQL, MongoDB, FastAPI, SQLAlchemy, Next.js, Prisma, R

PUBLICATIONS

Capturing in-field root system dynamics with RootTracker

J.J. Aguilar, M. Moore, L. Johnson, R.F. Greenhut, E. Rogers, D. Walker, F. O'Neil, J.L. Edwards, J. Thystrup, S. Farrow, J. Windle, P.N. Benfey. Plant Physiology, 187(3):1117–1130

October 2021

A tractable state-space model for symmetric positive-definite matrices

J. Windle and C. Carvalho. Bayesian Analysis, 9(4):759-792

November 2014

The Bayesian Bridge

N. Polson, J.G. Scott, and J. Windle. Journal of the Royal Statistical Society Series B, 76(4):713–733

August 2014

Bayesian Inference for Logistic Models Using Polya–Gamma Latent Variables

N. Polson, J.G. Scott, and J. Windle. Journal of the American Statistical Association, 108(504):1339–1349

November 2013