

Jesse Windle

Principal Data Scientist

Prairie Village, KS

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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