Hunter R. Merrill

💼 Principal Data Scientist | AI Solutions Architect

🏠 Columbus, OH

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👤 Bio

I am an outcome-driven **Technical Program Lead** with a passion for bridging the gap between advanced AI and global development. I have 8+ years experience in data science and 4+ years experience leading cross-functional teams to deliver scalable solutions for agriculture and public health. I have extensive experience with advanced statistical & machine learning methods including Bayesian modeling, deep learning and probabilistic forecasting. I have authored multiple peer-reviewed publications and patents.

✳️ Education

University of Florida

PhD, Agricultural and Biological Engineering

📅 May 2014 - May 2018

MStat, Statistics

📅 Aug 2012 - May 2014

Mississippi State University

BS, Mathematics

📅 Aug 2008 - May 2012

✳️ Skills

Expert: AI Strategy · Program Management · Stakeholder Management · Statistics · Machine Learning

Experienced: Backend engineering · Remote sensing · AI software development · Mobile app development

Novice: Frontend engineering · Web development

⚙️ Tools

Proficient: Python · Bash · Git · SQL · Tensorflow · Spark · Javascript · HTML · CSS

Prior experience: AWS · PyTorch · C++ · R · Matlab · LaTeX · QGIS

⚙️ Personal Projects

- Impactfolio: Donation tracking webapp
- Kaggle competition: Birthweight prediction intervals
- Training journal: Bayesian metabolic markers

This CV is available at
hrmerrill.github.io
You can also find me on LinkedIn.
Last updated: 18 Dec 2025

💼 Experience

Taimaka

Program Improvement Fellow

📅 Sept & Oct 2025

Improved pediatric patient outcomes and reduced malnutrition treatment cost in Gombe, Nigeria.

- Built a facial recognition model with 99% true acceptance and rejection rates and 97% top-three accuracy.
- Built and deployed a mobile app for contactless on-device biometric identification using the facial recognition model.
- Built and automated a backend system to update biometric templates.
- Collaborated with field teams and local stakeholders to pilot biometric identification, ensuring ethical and effective implementation in low-resource settings.
- Discovered a cohort of repeat patients and performed analyses to improve treatment protocols for patients who relapse and return to treatment after initial recovery.

Climate LLC / Bayer

Principal Data Scientist

📅 Sept 2024 - Current

I lead agile teams to deliver scalable AI solutions for precision agriculture. I am responsible for influencing the strategic direction of the business unit and for defining quarterly milestones and two-week deliverables, and for working with commercial teams to align software development with business goals.

- Improved field boundary management experience by developing and deploying a QGIS plugin. I am currently leading the development of a farmer-facing, SAM-based field boundary segmentation tool.
- Automated practice change evidence verification by developing and deploying image- and text-classification neural network models.
- Explored efficient and compliant AI tools by fine-tuning and in-house hosting agent- and RAG-based LLM frameworks for natural language queries of carbon market registry documentation.

Lead Data Scientist

📅 Nov 2020 - Sept 2024

I led agile teams to deliver predictive models for crop diseases. I was responsible for defining scientific strategy, quarterly milestones and two-week deliverables, and for working with commercial teams to align scientific research with business goals.

- Enabled crop protection insights by developing and deploying a deep learning gaussian process model for jointly forecasting multiple diseases.
- Improved data collection efficiency by defining a data valuation strategy & hiring two contractors to execute on it.
- Identified and addressed the risks of collecting more of the same data across programs.

Senior Data Scientist

📅 April 2018 - Nov 2020

- Created in-season wheat disease forecasts by developing probabilistic deep learning models.
- Improved crop yield models by creating deep learning embeddings of high-dimensional environmental data.
- Mentored an intern to develop probabilistic deep learning models to forecast soybean yield over long lead times.

Geospatial Statistician

📅 May 2017 - April 2018

Identified crop nutrient deficiencies in soil by developing predictive statistical models using satellite imagery.

Freelance

Grant Review Panel Member

📅 2024 & 2025

Reviewed grant proposals for the USDA's Data Science for Food and Agriculture Systems awards.

❤️ Service

Taimaka

📅 May 2025 - Current

- Reducing nonresponse and mortality rates of malnourished Nigerian children with predictive model development, deployment and automation.
- Quantifying impact by assisting with cost-effectiveness analyses.

UF ABE Advisory Board

📅 Dec 2022 - Current

Responsible for advising on the University of Florida's Agricultural and Biological Engineering department's mission statement and strategy, as well as ensuring curricula result in successful placement of graduates.