

Nathan J. Wade

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EDUCATION

Drexel University, Philadelphia, PA — Master of Science in Data Science (MSDS)

Expected 2028

Cornell University, Ithaca, NY — B.S. Information Science (Data Science)

December 2025, Major GPA: 3.53

Relevant Coursework: Data Science, Data Analytics, Natural Language Processing, Linear Algebra, Analysis of Algorithms, Ethics in Data Science, Data Communication, Data Structures and Functional Programming, Computing Using Python

TECHNICAL SKILLS

Languages: Python, SQL, PostgreSQL, Java, JavaScript, R

Machine Learning and Statistics: Large Language Models, XGBoost, Logistic Regression, Neural Networks, Feature Engineering, PCA, Statistical Analysis, Hypothesis Testing, Prompt Engineering

Data Tools: Pandas, NumPy, Scikit-learn, PyTorch, Jupyter, ETL Pipelines, Data Visualization, Excel, Git

Backend and MLOps: FastAPI, Docker, REST APIs, Model Deployment, Monitoring, Terraform

Cloud: Amazon Web Services, Microsoft Azure, AWS Cloud and AI Practitioner

PROFESSIONAL EXPERIENCE

Data Scientist Intern, Zinnia Health

Jun 2024 to Sep 2024

- Built and deployed supervised ML models for medical admissions classification (Python, SQL, FastAPI)
- Engineered features and performed dimensionality reduction (PCA) for improved model stability
- Trained and evaluated Logistic Regression and XGBoost models, achieving ~88% accuracy and ~90% F1
- Automated ETL pipelines and KPI dashboards using Python and SQL, improving call center performance by 10%
- Monitored model performance and data quality post deployment to support data driven decisions

Food Runner, White Dog Cafe, Philadelphia, PA

Jun 2026 to Present

RESEARCH EXPERIENCE

AI Research Assistant, Children's Hospital of Philadelphia (CHOP)

Sept 2026 to Present

- Reviewing clinical guidelines and HIPAA compliance frameworks to establish ethics and safety constraints for AI in mental health
- Applying modern AI safety methods including deterministic response sets and structured conversation flows in Azure and Terraform
- Designing an LLM recommendation system parsing patient survey data to support clinical decisions, defining safety metrics for AI Governance Committee review

PROJECTS

GPU Performance Prediction and Advisor — [Live Demo](#) | [GitHub](#) | [Read Paper](#)

November 2025 to March 2026

- Trained XGBoost and regression models on GPU specs to predict gaming FPS; used SHAP to identify pixel rate as top performance driver (+22.5 FPS)
- Built a hybrid inference pipeline combining benchmark data with model predictions to recommend settings across games
- Integrated an LLM layer for natural language queries with fuzzy matching to standardize user input to GPU specs
- Deployed the application on Streamlit and authored a research paper documenting the methodology and results

Medical Admission Classifier — Model Development for Zinnia Health

2024

- Applied SMOTE, PCA, and elastic net regularization to address class imbalance across 100k+ patient intake records
- Engineered 15+ domain specific features from raw clinical intake data to improve model signal
- Benchmarked Logistic Regression against XGBoost via cross validation to select the production model
- Containerized the final model with Docker and deployed it as a REST API using FastAPI

EXTRACURRICULAR

Cornell Division I Wrestling | 2022 to 2025 | 20+ hrs/week | EIWA and Ivy League Team Champions | Top 3 NCAA finishes