Glenn Dalbey Resume

# GLENN DALBEY

## Data Science & Analytics Professional

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### PROFESSIONAL SUMMARY

Results-driven Data Science professional with MS in Data Science and proven expertise in production AI/ML systems. Successfully deployed healthcare AI with 93.8% accuracy and production-grade performance. Demonstrated success in advanced predictive modeling (90.9% ROC AUC), multi-modal AI, computer vision, NLP, and MLOps. Combines 15+ years of operational excellence and continuous improvement leadership at John Deere with cutting-edge technical expertise in Python, deep learning, and cloud technologies.

### TECHNICAL SKILLS

**Programming Languages:** Python (Expert), R, SQL, TypeScript, JavaScript, C++, C#, Java, HTML/CSS

**Machine Learning & AI:** PyTorch, TensorFlow/Keras, scikit-learn, XGBoost, Hugging Face Transformers, DistilBERT, OpenAI API

**Data Science & Analytics:** Pandas, NumPy, Tableau, Data Visualization, Statistical Analysis, Data Mining, Predictive Modeling, Big Data Analytics

**Databases & Cloud:** PostgreSQL, MongoDB, AWS (Certified Cloud Practitioner), S3, Weights & Biases

**Web Frameworks & Tools:** Flask, FastAPI, Streamlit, React, Next.js, Node.js

**MLOps & Deployment:** Docker, CI/CD, GitHub Actions, Model Deployment, API Development

**Specializations:** Computer Vision, Natural Language Processing (NLP), Multi-modal AI, Healthcare AI, Deep Learning, Model Ensemble Methods, LLM Orchestration

### FEATURED DATA SCIENCE PROJECTS

#### **Apollo Healthcare Connect** | apollohealthcareconnect.com

*Production Multi-modal AI Healthcare Triage System | MS Capstone Project*

* Deployed fully functional healthcare AI system with production-grade architecture and sub-second response times
* Achieved 93.8% combined multi-modal accuracy and 98.0% burn classification accuracy
* Implemented 5-model ensemble architecture combining DistilBERT (NLP) and CNNs (Computer Vision)
* Successfully handled extreme class imbalance (29.7:1 ratio) with advanced loss functions
* Built production pipeline with Flask API, AWS S3 integration, and comprehensive safety protocols
* Technologies: PyTorch, TensorFlow/Keras, DistilBERT, Flask, OpenCV, AWS S3, HTML/CSS/JavaScript

#### **TandemAI - LLM Ensemble Orchestration Platform** | github.com/XxRemsteelexX/TandemAI

*Local-First AI Model Collaboration System*

* Built innovative platform enabling multiple LLMs to collaborate through 4 orchestration modes (relay, debate, verification, research)
* Designed universal provider support for 10+ platforms including Ollama, OpenAI, Anthropic, Groq, LM Studio
* Implemented real-time streaming, conversation history, and privacy-first local-first architecture
* Created cross-platform deployment with Tauri and Electron for desktop applications
* Technologies: TypeScript, Node.js, React/Next.js, Multiple AI APIs, Tauri, Electron

#### **NFL Rookie Wide Receiver Performance Prediction** | github.com/XxRemsteelexX/NFL\_Rookie\_WR\_1K\_Analysis

*Advanced ML Analysis with Feature Optimization | BS Capstone Project*

* Developed predictive model achieving 90.9% ROC AUC on future data validation for 1000+ yard seasons
* Reduced overfitting gap from 18.5% to 0.4% through sophisticated feature optimization (46 to 20 features)
* Implemented temporal validation strategy ensuring model generalization to future NFL seasons
* Created production-ready ensemble model for NFL draft analysis with comprehensive data pipeline (2006-2024)
* Technologies: Python, scikit-learn, XGBoost, Pandas, NumPy, Matplotlib/Seaborn

#### **Business Analytics AI Platform** | business-analytics-ai-platform-production.up.railway.app

*AI-Powered Excel Analytics for Thompson PMC*

* Built professional business intelligence platform with Thompson PMC branding for enterprise use
* Implemented natural language querying enabling non-technical users to analyze Excel data through conversation
* Developed automated chart generation and executive-ready visualizations for business insights
* Integrated AI-powered analytics for instant business intelligence from uploaded data files
* Technologies: TypeScript, Next.js, AI Integration, Excel Processing, Business Intelligence, NLP

#### **Blue Zones Longevity Analysis** | xxremsteelexx-blue-zones-longevity--blue-zones-dashboard-xgbvew.streamlit.app

*Independent Research on Gravitational Variations and Longevity*

* Conducted cutting-edge research combining gravitational physics with longevity studies in Blue Zones regions
* Developed advanced ML ensemble models for pattern analysis in exceptional longevity populations
* Created interactive Streamlit dashboard for data visualization and policy recommendation exploration
* Generated actionable policy recommendations based on comprehensive statistical analysis
* Technologies: Python, Jupyter Notebook, Machine Learning, Streamlit, Statistical Analysis

#### **ML Model Recommender** | github.com/XxRemsteelexX/Ml-Model-Recommender

*Automated ML Model Selection for Tabular Data*

* Developed intelligent assistant automating model selection process for tabular datasets
* Implemented comprehensive EDA, automatic problem type inference, and smart preprocessing detection
* Built high-cardinality and class imbalance detection with model baseline generation
* Created exportable diagnostic reports in markdown and HTML formats with cross-validation metrics
* Technologies: Python, scikit-learn, Jupyter Notebook, AutoML, Data Analysis

### PROFESSIONAL EXPERIENCE

#### **Freelance Data Science Consultant** | Thompson Parking & Mobility Consultants

*Current*

* Provide data science and analytics consulting services for business intelligence initiatives
* Develop AI-powered Excel analytics platform enabling natural language data queries and automated insights
* Design custom analytical solutions and machine learning models for client-specific challenges
* Support data-driven decision making through advanced analytics and predictive modeling

#### **Continuous Improvement Leader & Material Specialist** | John Deere, Waterloo Works & Ankeny Works

*2005-2020, 2021-Present*

* Led CI Department as Representative and Wage CI Trainer, facilitating process improvement frameworks
* Developed comprehensive training curriculum for warehouse personnel, improving onboarding efficiency
* Designed and implemented the Zones Project, modernizing material flow training systems
* Led departmental CI mapping initiatives to improve operational efficiency and reduce cycle times
* Optimized material replenishment processes using bin methodology, reducing operational inefficiencies
* Managed supply chain logistics, vendor relations, and SAP-integrated inventory management
* Supported engineering teams in workflow re-splits and cycle time analysis for production optimization

### EDUCATION

#### **Master of Science, Data Science and Data Analytics**

Western Governors University | Graduated August 2025  
• Advanced capstone: Multi-modal AI healthcare triage system (production deployed)  
• Member: National Society of Leadership and Success, Student Insights Council

#### **Bachelor of Science, Data Analytics**

Western Governors University | Mar 2023 - Sep 2024  
• Capstone: NFL Rookie Wide Receiver Performance Prediction Model  
• Member: National Society of Leadership and Success

#### **Associate of Science, IT Programming**

Clinton Community College | Jan 2022 - Dec 2022  
• Certificate in Data Analytics (completed concurrently)  
• Member: Phi Theta Kappa Honor Society

#### **Associate of Arts**

Hawkeye Community College | Sep 2019 - Dec 2020  
• Member: Phi Theta Kappa Honor Society

### CERTIFICATIONS

#### **Industry Certifications:**

* CompTIA Data+ (Feb 2024 - Feb 2027)
* AWS Certified Cloud Practitioner (Jan 2024 - Jan 2027)
* CompTIA A+ (Jun 2023 - Jun 2026)

#### **Udacity Nanodegrees & Courses:**

* Advanced Computer Vision and Deep Learning (Jul 2025)
* Machine Learning DevOps (Feb 2025)
* Introduction to Deep Learning (Apr 2025)
* Building Generative Adversarial Networks (Feb 2025)
* Convolutional Neural Networks (Feb 2025)
* Transformer Models and BERT Model with Google Cloud (Feb 2025)
* Data Visualization Course (Jun 2024)
* Supervised and Unsupervised Learning (May 2024)
* Advanced Data Wrangling and Data Modeling (Apr 2024)
* R Programming (Apr 2024)
* Data Analysis and Descriptive Statistics (Mar 2024)

#### **LinkedIn Learning:**

* PostgreSQL Essential Training (Dec 2024)
* Learning MongoDB (Dec 2024)

### KEY ACCOMPLISHMENTS

* Deployed fully functional AI healthcare system with 93.8% accuracy and production-grade performance
* Achieved 90.9% ROC AUC on temporal validation for sports analytics with production-ready deployment
* Built and deployed 5+ live production systems across healthcare, business analytics, and research domains
* Successfully handled extreme class imbalance (29.7:1 ratio) in medical imaging classification
* Developed production-ready ensemble models with advanced safety protocols for healthcare applications
* Created scalable ML pipelines and REST APIs for real-world applications
* Published 15+ open-source projects on GitHub with comprehensive documentation
* Reduced ML model overfitting by 97.8% (18.5% to 0.4% gap) through feature optimization techniques

### HONORS & AWARDS

* National Society of Leadership and Success | 2024
* Phi Theta Kappa Honor Society Member | 2022
* Eagle Scout | 1995