# DONALD K. WEDDING, PHD

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## **SUMMARY**

- Twenty five years of experience in Data Science and Statistical Analysis.
- Fifteen years as associate professor at Northwestern University in Data Science program.
- Industry experience includes banking, insurance, health care, retail, and telecom.
- Experience as both "hands on" Data Scientist and Manager of team of analysts.
- Pragmatic approach to analytics focusing on usability and understanding of models.
- Education
  - o PhD Engineering Machine Learning and Artificial Intelligence
  - MS Engineering Software Development and Statistics
  - MS Management Marketing and Finance
  - o MS Data Science
  - BS Electrical Engineering

#### **MODELING APPLICATIONS**

#### Marketing

- Retention / Churn
- Lifetime Value
- Segmentation
- Customer Response
- Store Location Analysis

#### Insurance

- Rating / Underwriting
- Territory Risk Analysis
- Usage Based Analysis

#### Banking

- Credit Risk Scoring
- Default / Loss / Prepay
- CCAR / CECL / Stress Testing

#### **Health Care**

- Claims Payment Models
- Medical Studies
- Electronic Medical Records
- Insurance Reimbursement
- HIPAA Privacy/Security

#### Python

**ANALYTIC TOOLS** 

- SciKit
- Tensor Flow
- PyTorch
- NLTK
- Open Al
- PySpark

#### SAS

- SAS Macro Programming
- SAS Enterprise Guide
- SAS Enterprise Miner
  - SAS Forecast Server

#### Additional Tools

- R Programming
- Amazon Web Services (AWS)
- Microsoft Azure
- SQL
- Tableau
- DataRobot
- Hugging Face
- Ollama

### Statistical Analysis

**ANALYTIC TECHNIQUES** 

- Advanced Statistical Analysis
- Linear / Logistic Regression
- Generalized Linear Models

#### **Machine Learning**

- Decision Trees
- Gradient Boosting
- Random Forests
- Deep Learning Neural Networks
- Support Vector Machines (SVM)
- Clustering / Segmentation
- Artificial Intelligence

#### **Other Analytics**

- Large Language Models (LLM)
- Open Al
- Natural Language Processing
- Time Series Analysis
- Fractal / Chaos Analysis

### **EXPERIENCE**

#### 2018-Present **DATA SCIENCE CONSULTANT DKW ANALYTICS Cleveland**, Ohio Independent Data Science consultant available for projects, consulting, and subcontracting. Available for both 1099 and W2. Health Care Analytics Insurance Payment Models Statistical Analysis of Medical Data Time Series Forecasting Natural Language Processing Clustering / Segmentation • Ad Hoc Statistical Analysis Converting SAS Code to Python • 2013-Present **INSTRUCTOR OF DATA SCIENCE Northwestern University** Chicago, Illinois Taught numerous Data Science courses at Graduate/Undergrad Level Developed Data Science courses in statistics and machine learning 2016-2018 **DIRECTOR OF DATA SCIENCE Sprint Corporation Overland Park, Kansas** Developed Corporate Analytic Center of Excellence • Recruited, hired, trained, and managed team of Data Scientists Presented results to corporate "C-Level" officers ٠ Personally Developed or Managed the Development of Models for: ٠ • Artificial Intelligence / Machine Learning o Customer Segmentation o Customer Churn and Lifetime Value Models Customer Upsell / Cross Sell Models Customer Behavioral Triggers Retail Store Placement

Text Analytics

#### 2007-2016 DATA SCIENCE ENGINEER SAS Institute Cary, North Carolina

Developed predictive models for Banks, Insurance Companies, Retail, and Telecom. Models developed included:

- Credit Risk Models
- Health Insurance Payment Models
- Customer Segmentation
- Customer Churn and Lifetime Value Models
- Customer Behavioral Triggers
- Text Analytics on email data, customer chats, call center notes
- Retail Store Placement
- Fraud Models

### 2005-2007 MANAGER OF ANALYTICS R&D Progressive Insurance Mayfield, Ohio

- Managed Team of Data Scientists
- Personally Developed or Managed the Development of Models for:
  - o Insurance Risk
  - o Customer Churn and Lifetime Value Models
  - o Territory Risk Models
  - o Text Analytics of Customer Email
  - Telematics Data Analytics

#### 1999-2005

#### VICE PRESIDENT OF ANALYTICS Key Bank Corporation

#### **Cleveland**, Ohio

- Recruited, hired, trained, and managed team of Data Scientists
- Presented results to corporate "C-Level" officers
- Personally Developed or Managed the Development of Models for:
  - $\circ \quad \text{Credit Risk}$
  - o Customer Segmentation
  - o Customer Churn and Lifetime Value Models
  - o Customer Behavioral Triggers
  - o Financial Manager Attrition

1998-1999 ARTIFICIAL INTELLIGENCE ENGINEER Pegasus Technologies Mentor, Ohio

- Electric Power Plant Simulation Models
- Customer Training Classes on Statistics and Neural Networks

1988-1998SOFTWARE ENGINEERINGWorked on numerous object oriented software engineering projects as<br/>both lead software engineer and team member. Languages include: Java,<br/>C++/C, and Ada.

- Noteworthy Medical Systems; Cleveland, Ohio
- Photonics Systems; Toledo, Ohio
- Loral Defense Systems; Akron, Ohio
- Naval Aviation Depot; San Diego, California

## **EDUCATION**

| ENGINEERING               | Ph.D. Engineering Science   |
|---------------------------|---|
| EDUCATION                 | University of Toledo  |
|                           | M.S. Engineering Science; University of Toledo<br>B.S. Electrical Engineering; University of Toledo   |
|                           | <ul> <li>Data Science / Machine Learning / Artificial Intelligence         <ul> <li>Applied to Heart Disease Diagnosis</li> <li>Applied to Breast Cancer Diagnosis</li> </ul> </li> </ul> |
|                           | <ul> <li>Statistical Analysis</li> <li>Computer/Software Engineering</li> </ul>   |
| BUSINESS<br>EDUCATION     | M.S. MANAGEMENT<br>University of Akron  |
| DATA SCIENCE<br>EDUCATION | M.S. DATA SCIENCE<br>Central Connecticut State University   |