



# Kathryn Stephens

## Overview

AI consultant and software developer with a PhD in mathematics. Expert in process automation, custom application development, and optimization techniques for business applications across accounting, construction, and distribution industries.

(716) 697-8542

## Professional Experience

**Founder & CEO** | *TechFrontier AI*  
Reno, NV | 05/2024 - Present

- Design and implement custom software solutions using AI, Python, and cloud-based technologies
- Advise clients on AI integration strategies, tool selection, and private deployment options
- Develop AI training programs tailored to client's objectives
- Saved a client 100+ labor hours monthly through a custom app with process automation tools such as:
  - Technician schedule optimizer
  - Data integration tools for financial reporting
  - Custom GPTs for client correspondence

**Industrial Mathematics Research Fellow** | *UCLA G-RIPS*  
Berlin, Germany | Summer 2023

- Collaborated with international research team to develop optimization algorithms for electric bus scheduling
- Compared mathematical models to improve efficiency

**Teaching Assistant** | *University of Kentucky*  
Lexington, KY | 08/2019 - 05/2024

- Led recitations for undergraduate mathematics courses
- Developed instructional materials for complex math concepts



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## Market Research and Applied Mathematics Consultant

*Sierra Integrated Systems* | Reno, NV | 01/2018 - 02/2020

- Explored emerging technologies for home energy usage and optimization
- Analyzed data to identify market trends

## Education

### University of Kentucky

PhD in Mathematics | 2024

*Dissertation focus: Algebraic Coding Theory*

### University of Kentucky

Master of Arts, Mathematics | 2021

### The George Washington University

Bachelor of Science | 2019

*Major: Mathematics | Minor: Computer Science*

## AI & Machine Learning

- Private and local LLM deployment (Ollama, on-premise hosting)
- Prompt engineering
- Development frameworks (Flowise/Langchain, OpenWebUI)
- TensorFlow, PyTorch (via Google Colab)
- Retrieval-augmented generation (RAG)
- AI agent development and orchestration

## Programming & Development

- Optimization for business/industrial applications
- Python, HTML, Java, SQL, MATLAB
- Cloud Technologies (Azure, Power Platform, SharePoint)
- Software Integration, Docker
- Excel Macros, Power Query
- Microsoft Graph API
- REST API development and integration