

# Michael Brogan

<https://michaelnbrogan.com/>

## EDUCATION

Candidate for **Bachelor of Science in Commerce & Business Administration**, The University of Alabama  
**Graduation Date:** May 2025 **GPA:** 3.6/4.0  
**Major:** Management Information Systems **Minor:** Computer Science

## EXPERIENCE

*January 2025 -  
May 2025*

**Tech Lead, AI Knowledge Assistant**, UA System, Tuscaloosa, AL

Goal: Developed an AI-powered chatbot using Microsoft Copilot Studio to improve natural language driven document retrieval and streamline knowledge access for UA System employees.

Value: Implemented a scalable AI assistant leveraging machine learning and retrieval-augmented generation, reducing search time for internal policies and enhancing institutional knowledge accessibility.

My Contribution:

- **AI Chatbot Development:** Led the design and deployment of an NLP-driven chatbot for real-time knowledge retrieval.
- **ML Optimization:** Improved chatbot response accuracy using fine-tuned ML models.
- **API Integration:** Developed RESTful APIs for seamless interaction with internal knowledge bases.
- **Security:** Deployed infrastructure on Azure with OAuth authentication and enterprise security.
- **Agile Leadership:** Managed a six-person team using Agile for iterative enhancements.

*May 2024 - August  
2024*

**Java IT Intern**, Tractor Supply, Brentwood, TN

Goal: Optimize and enhance back-end processes through the development and maintenance of scalable Java-based applications to support Tractor Supply's nationwide operations and growth.

Value: Improved the efficiency and performance of core systems, directly impacting operational capacity across 2,200+ stores and contributing to Tractor Supply's \$14.56B in net sales.

My Contribution:

- **Enhanced System Performance:** Assisted in developing and maintaining Java-based applications, helping optimize back-end processes for over 2,200 stores nationwide, contributing to TSC's \$14.56B in net sales.
- **API Development:** Designed and implemented RESTful APIs during my internship, supporting seamless integrations with third-party services, improving operational efficiency across systems.
- **Software Solutions Integration:** Participated in the integration of new software solutions into existing infrastructure, reducing system downtime by 15%, enhancing overall productivity.
- **Process Improvement:** Collaborated with IT management to streamline internal processes, driving a 3.1% improvement in operating income (\$1.48B) through efficient technology implementations.

*May 2023 –  
Present*

**Founder & Lead Developer**, GrowLab, Tuscaloosa, AL

Goal: Build tailored, high-performance websites and digital platforms that improve user engagement and deliver measurable business outcomes for clients by focusing on user-centered design and search engine optimization strategies.

Value: Boosted clients' online presence and business performance by increasing website traffic by an average of 40%, helping businesses attract more customers and enhance their digital footprints.

My Contribution:

- **Lead a team of five professionals** in designing and developing custom, responsive websites, improving user experience, and driving client growth.
- **Increased website traffic for 20+ clients** by an average of 40% through strategic SEO implementations, boosting their online visibility and engagement.
- **Managed over 20+ successful projects**, delivering high-quality results in UI/UX design, front-end development, and SEO while ensuring client satisfaction.

## TECHNICAL EXPERIENCE

**Languages:** C#, C++, Java, Python, SQL, JQL, HTML, CSS, JavaScript

**Frameworks/Libraries:** ASP.NET MVC, Bootstrap, Springboot

**Operating Environments:** MS Windows, UNIX, macOS

**Business Tools:** Visual Studio, Eclipse, Postman, VMWare, Git, Oracle Toad, Microsoft Copilot

## HONORS AND ACTIVITIES

Dean's List

President's List

Eagle Scout

Alabama Alumni Scholarship

Tutwiler Scholarship