

## Andrew Branum

Louisville, KY | (859) 992-0677 | [drewbranum53@gmail.com](mailto:drewbranum53@gmail.com) | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

### Professional Summary

---

Full-Stack Software Engineer with expertise in designing, developing, and deploying scalable full-stack applications using Angular, Node.js, C#/.NET, and AWS. Architected and launched a commercial web service from concept to production, establishing a robust platform to streamline appointment scheduling. Adept at leveraging Agile methodologies and CI/CD pipelines to enhance development workflows and deliver outcome-driven solutions.

### SKILLS

---

- **Languages:** JavaScript, TypeScript, C#, Python, SQL, HTML/CSS (Familiar: Java, Golang)
- **Frameworks & Libraries:** Angular, Node.js, Express.js, .NET Core, (Familiar: LangChain, Gymnasium)
- **Cloud & Devops:** AWS (Elastic Beanstalk, RDS, S3, Lambda), Azure DevOps (CI/CD, Pipelines), Git, Docker
- **Developer Tools:** VS Code, Dynatrace, GitHub, Postman, SSMS, Agile/SCRUM, Microsoft SQL Server

### PROFESSIONAL EXPERIENCE

---

#### Software Developer I | Machinify | Lagrange, KY

Aug. 2023 - Present

- Analyzed and optimized underperforming SQL queries identified through system monitoring, decreasing average data retrieval times by 5% and reducing server load during peak hours.
- Resolved escalated technical issues by performing root-cause analysis to implement permanent solutions and prevent incident recurrence, contributing to a 99.9% system uptime.
- Implemented and managed business facing tools that allow efficient completion of work and reduce incoming tickets by an estimated 15%.
- Engineered a key enhancement for a microservice that extracts, transfers, and loads data for clients meeting their requirements and yields an automated report that is sent to clients monthly, saving approximately 4 hours a month.
- Reduced system incidents daily through proactive monitoring with Dynatrace and the creation of custom health-check dashboards, ensuring high availability for key services.
- Led the data integrity initiative for a large-scale client dataset, developing cleansing scripts that correct over 1,000,000 records and ensured 99.9% accuracy for critical business reporting services.
- Collaborated with an Agile/SCRUM team to deliver a portfolio of over 30 software features and bug fixes, consistently meeting sprint goals and business deadlines.

#### Co-Founder & CTO | ShowNoShow LLC | Danville, KY

Jan. 2023-Present

- Architected, developed, and deployed a full-stack appointment scheduling platform (Angular, Node.js, SQL, AWS) from concept to beta launch in 6 months, serving as the core product for the business.
- Engineered a custom RESTful API, integrated Stripe for secure payment processing, and Twilio for automated SMS reminders, which aims to reduce client no-shows by an estimated 80+%.
- Deployed and scaled the application on AWS using Elastic Beanstalk and RDS, successfully maintaining 99.9% uptime while handling a growing user base.

#### DevOps/Data Integrity Co-op (3 rotations) | The Rawlings Group | Lagrange, KY

2021 – 2022

- Contributed to the development of an enterprise web application (C#/.NET, AngularJS, SQL), resolving over 50 bugs and implementing 10+ new features to improve user experience.
- Increased QA efficiency by 10% through the development of automated testing scripts for core database systems, reducing manual testing hours and improving test coverage.
- Performed ETL operations on multiple-terabyte client datasets using SSMS, generating accurate reports that informed key business intelligence decisions.

### PROJECTS

---

- **AI Financial Advisor** | <https://github.com/Andrew-Branum1/ai-financial-advisor>
  - Developed a full-stack web application that provides personalized financial advice by combining a Reinforcement Learning model for portfolio allocation with a LLM for generating human-readable explanations
  - Engineered a backend using Python and Flask to serve a custom-trained PPO model built with Stable Baseline3 and PyTorch to predict optimal weights based on risk profiles
  - Integrated Google's Gemini API to generate dynamic, understandable rationale for portfolio recommendations

### EDUCATION: University of Louisville J.B. Speed School of Engineering

---

- **Master of Engineering, Computer Science and Engineering** Expected: Dec 2025 (1 online class remaining)
- **Bachelor of Science, Computer Science and Engineering** Graduated: May 2023 (GPA: 3.695)
- **Awards:** 4x Trustees' Scholar, 2<sup>nd</sup> Place in Capstone Project, Master's Continuing Scholarship

### LEADERSHIP & INVOLVEMENT

---

- **President (2 yr.), Alumni Relations (1 yr.), Tau Kappa Epsilon:** Led a chapter of 40+ members, oversaw all operations, event coordination, and goal setting, resulting in a new alumni association and a 50% increase in members.