Joseph Matthew Ingenito

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OBJECTIVE

Full-Stack Developer with a robust background in mathematics and software engineering, specializing in ASP.NET Web Forms, ASP.NET Core, and React. Adept at driving innovation and crafting efficient software solutions within hybrid Waterfall/Agile environments. Passionate about integrating AI and Machine Learning to improve workflows and enhance quality of life. Committed to continuous learning and dedicated to contributing to a dynamic team by leveraging advanced technologies to tackle complex challenges and push the boundaries of software development.

KEY SKILLS

- **Backend:** C# (.NET Framework, .NET Core), VB.NET (.NET Framework, .NET Standard), ASP.NET (Web Forms), ASP.NET Core (MVC), WCF, Entity Framework (Database-First), LINQ, Node.js, Python, REST API Design & Development (CRUD)
- **Frontend:** React, TypeScript, HTML5/CSS3
- **Databases:** SQL (Microsoft SQL Server)
- **Tools & Methodologies:** Git, Agile, Waterfall, Debugging & Troubleshooting
- **Additional Skills:** Enterprise Software Development, Problem Solving

PROFESSIONAL EXPERIENCE

Visual Computer Solutions **August 2018 – Present**

Full-Stack Developer (Lead Jobs4Blue)

- Enhanced functionality and performance for three ASP.NET Web Forms projects utilized by over 700 police departments, executing routine bug fixes, optimizing web pages, and introducing new features and custom reports, significantly improving user experience and operational efficiency.
- Engineered a sophisticated fuzzy string processing algorithm, streamlining a dataset of 18,000 vendors to 8,000 unique entities, thereby enhancing data accuracy, operational efficiency, and maintainability.
- Migrated the entire Extra Duty module of the primary scheduling platform from ASP.NET Web Forms to a modern React, Node.js and ASP.NET Core infrastructure, enhancing system performance and scalability. Involved implementing best practices and optimizing legacy code, facilitating a smoother and more efficient user experience.
- Successfully optimized a high-traffic Job Board by refactoring legacy VB.NET code, reducing the load time in half. Implemented advanced SQL queries and leveraged Node.js for efficient data handling and asynchronous processing, significantly enhancing user experience and system scalability.
- Designed and implemented RESTful APIs, including comprehensive CRUD operations, serving as the backend for kiosk applications, mobile platforms, and the newest release of the primary scheduling platform. This ensured robust, dynamic data handling and functionality across diverse digital touchpoints.
- Reworked a Xamarin.Forms project from an unusable state to a fully functional application used by tens of thousands of police officers for signing up and checking into Extra Duty Jobs. Improvements included enforcing SOLID principles, correcting SQL queries, and standardizing styles across the company's solution.
- Aided the transition from Xamarin.Forms to .NET MAUI for compatibility with Android 14 and iOS 17, handling manual conversions not covered by the .NET Upgrade Assistant. Tasks included correcting inconsistent namespaces, updating NuGet packages, and reworking logic for device permissions and global application variables.
- Developed an internal GPT tool to assist junior developers with onboarding and learning the company's solutions. This tool provided conceptual understanding and coding guidance, significantly improving the efficiency of the onboarding process and enhancing team productivity.

University of Denver **May 2022 – June 2023**

Graduate Teaching Assistant

- Facilitated learning in two courses per term, providing dedicated support through four weekly office hours and leading two weekly recitation sessions, enhancing student understanding and engagement.
- Delivered seven guest lectures across multiple courses, successfully maintaining educational continuity, and receiving positive feedback for clarity and instructional quality.
- Proctored and graded quizzes, exams, homework, and labs, and maintained the gradebook on Canvas.
- Coordinated with students to schedule make-up quizzes and labs, enforcing the policies specified in the course syllabus.

PROJECTS

MUSE Research Library

- Spearheaded the development of a specialized C++ library, funded by TCNJ, to advance my research in analytic number theory. The library features a tailored Linear Algebra package, designed to meet the unique demands of the project, and incorporates sophisticated algorithms from Analytic Number Theory, enhancing research capabilities and analytical precision.
- Engineered a seamless data integration pipeline, facilitating efficient data exchange between C++ data-collection modules and Python-based data-visualization tools. Utilized JSON for versatile data and configuration management, optimizing the research workflow and enabling more insightful data analysis.

Self-Similar Fractal Strings

- Innovated a Python library dedicated to the visualization of complex Fractals, enabling users to generate intricate fractal designs through a user-friendly input interface.
- Significantly streamlines the preparation of academic posters and presentations, enhancing visual communication of complex mathematical concepts.
- Implemented a novel algorithm for fractal generation that prioritizes speed and memory efficiency.

EDUCATION

University of Denver, June 2023
Master of Science - Mathematics

The College of New Jersey, May 2021
Bachelor of Science, Cum Laude - Mathematics

- *Honors Thesis Titl*e: On the Second Order Kuramoto Model of Coupled Oscillators.
- *Awards/Honors:* Junior/Senior Achievement Award, Pi Mu Epsilon - National Mathematics Honors Society.

Brookdale Community College, May 2018
Associate of Science - Electrical Engineering