



Dennis E. Dombkowski

Expert Software Engineer

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Current Position:

Senior Consultant, West Monroe Partners

Professional Experience:

Has worked in the field of software engineering for nearly 20 years. Worked in database design, APIs, and frontend frameworks, often focused on one category at a time. Has also found himself in positions where he acts as a ‘full stack developer’, or a developer that touches all aspects of a large application, from frontend website work to database design.

Experience includes being a heads-down software engineer as well as a leader and mentor. He has vast amounts of experience in explaining highly technical terminology and concepts to non-technical people, such as Product Owners and Project Managers.

Has a genuine love for technology. Strives to continually improve himself by learning new skills, technologies, languages, frameworks, and techniques.

Education:

Bachelor of Science – Computer Information Systems Technology; Purdue University – May 2004

Associate of Science – Computer Programming Technology; Purdue University – May 2002



Professional Experience Detailed:

Senior Consultant

West Monroe Partners

May 2022 – Present

West Monroe Partners is a consulting firm; therefore, Dennis has separated his work into the contracts he was on through this company.

Experian (under West Monroe Partners)

Experian is a multinational data analytics and consumer credit reporting company. Dennis was brought onto this contract as a focused senior frontend software engineer, working on their extensive web application.

- Dennis engineered code towards a very complex codebase with dozens of repositories as a focused front-end developer. He worked with Angular 17, as well as React 18 and Redux. He used Jira for project management and GitHub for source control.
- Dennis spearheaded a new role: “Onboarding Lead”, that would spend a portion of time onboarding new engineers to the Experian Project. In Experian, the learning curve was very high, and it would take new engineers a year or more to get up to speed. Dennis found himself very proficient at explaining the more intricate details and nuances of Experian’s software in a way that new engineers could more easily understand.
- Dennis consistently consulted with project managers and product owners on the complex codebase. This included translating the codebase, as well as providing explanation on what changes were easy to make, difficult to make, and why.
- A confluence site was heavily contributed to by Dennis as a way of presenting complicated portions of the code in a simple manner. This allowed new software engineers who were unfamiliar with certain portions of the application to easily pick them up; preventing a deep dive that would take several hours (or days!), saving dozens of hours of overall time.



Beacon Mobility (under West Monroe Partners)

Beacon Mobility is a national network of transportation companies. At this time, Beacon Mobility was looking to modernize its business, specifically regarding its school bus dispatching system. This system lived in the “Paper and Phone Call World.” Dennis was brought on to, in a very short period, lead a team of developers to create an impressive proof-of-concept to establish a relationship between West Monroe Partners and Beacon Mobility. This project was ultimately successful, our proof-of-concept convinced Beacon Mobility to hire West Monroe Partners to a long-term contract.

- A proof-of-concept was rapidly engineered by Dennis and his team. This proof-of-concept used a frontend of React Native, Next.js, and Bulma.io. The API used Azure Functions, and the backend used Cosmos DB. These were all new frameworks at the time; all which Dennis had little to no experience with. He was however able to quickly utilize them based on his prior knowledge of similar technologies.
- A small team of junior software engineers was led by Dennis. He distributed tasks while also using his knowledge and skillset to cover aspects where the team would be otherwise weak. He also set up a source control system as well as a project management system to easily identify and assign tasks.
- Dennis brainstormed with the project manager and architect to realize what West Monroe Partners could do to accomplish their goal; and how they could use their vast collective experience and knowledge to make Beacon Mobility’s dispatchers’ lives better. This included partnering with other businesses and directly working with dispatchers to give them a ‘single glass pane’, combining all the services Beacon Mobility had partnered with to give them everything they need.



Senior Software Engineer

nQ Zebraworks

January 2022 - April 2022

nQ Zebraworks' main product is a workflow engine that drives the business and practice of law. Dennis was brought on as a senior software engineer for a brief but productive work period.

- A project was completed by Dennis that would display queued emails for approval/denial for a frontend legal firm. This application utilized Vue.js, Vuex, Jest unit testing, CSS3, Bootstrap, and HTML5. Dennis utilized Jira for ticket creation and GitHub for pull requests and code reviews. Dennis managed a small team and triaged tickets. Dennis had no prior experience with Vue.js but was able to quickly pick it up due to its similarity to AngularJS, a framework Dennis was very familiar with.
- Dennis aided in creating documentation to lessen some of the more painful parts of setup for future developers, as well as documentation on how to add code coverage using Jest with Vuex. Dennis implemented a unit testing code coverage plan for the team to fortify the code base.
- In this role Dennis worked heavily with design. Design was two steps ahead of everyone on any given new project, so I had to be one step ahead. When a project was ready to start, 20-30 Jira tickets were already created by Dennis showing the functionality up to MVP.



Senior Consultant

Rural Sourcing, Inc.

August 2020 - December 2021

Rural Sourcing, Inc. is a consulting firm, and all of Dennis' relevant experience was working on the Home Franchise Concepts contract, detailed below.

Home Franchise Concepts Contract (under Rural Sourcing, Inc)

Home Franchise Concepts had Dennis lead a team to build a frontend sales application, designed to be used directly by sales representatives while dealing with customers to sell products. This could be via phone call, or a tablet while visiting a customer in person. It was not meant to be used directly by the customer.

- A team was led by Dennis to build HFC's web application. This application used Angular 10, CSS3, Bootstrap, HTML5, and TypeScript. Dennis shipped quality code and had a high personal velocity, setting an example for the rest of his team.
- A backend application was developed and maintain using Python and Flask. This was used to communicate to the frontend with information from a SQL Database.
- Dennis helped to standardize error messaging, instituted code cleanup practices, implemented strong typing standards, and led overall code cleanup activities. This resulted in a dev team who always sought to leave the code base better than they found it, which in turn resulted in a code base that was much easier to understand and maintain by developers of all skill levels.
- In this role, Dennis helped to recover a project, starting from a point where the client had lost a lot of faith in Rural Sourcing, Inc., to a complete turnaround where the client extended the contract. Dennis proved in this project that his role could shift from that of a leader to a heads-down, high-velocity developer, and back, depending on what the team needed at the time.



Senior Consultant

ThisWay Development

January 2018 – August 2020/Present

ThisWay Development was unique in that it is a small startup, but it is also a consulting company. Dennis worked there in the capacity of a Software Engineer/Architect full-time from January 2018 – August 2020, but he still takes the occasional small job to the present day.

- A variety of small teams were led by Dennis. Dennis also took on the role of a full-stack developer, utilizing Angular 8, CSS3, Bootstrap, HTML5, and TypeScript on the frontend. The backend used various .NET Technologies including C#, WCF, Service Fabric, and ASP.NET Web API. An additional backend was developed for a project that utilized Python and Flask.
- Dennis implemented a complex backend system that would read very large CSV files, store the relevant information in the database, and then recreate the file in various formats to be processed by other systems.
- This role placed Dennis into a fire-and-forget role where he and/or his team could be given a series of requirements and get things done independently while being the top-performing engineer on the team when measured by customer delivery. Dennis co-developed a solution pattern that maximized the team's productivity and minimized defects, which kept the code base easier to read and work with.
- Dennis refactored a portion of the codebase to use standardized Angular controls and patterns, which minimized code complexity and custom implementations (which have high maintenance). Afterward, Dennis presented this strategy to his team and developed a broader rollout for every new initiative. As a direct result, my team's solutions became more standardized, easier to implement, and more approachable to new team members. Dennis also used this method to teach Angular to senior developers who didn't have direct experience in the framework.
- ThisWay Development emphasized greatly the importance of documenting its processes and frameworks to its clients, as said clients would usually also consist of software engineering teams. Dennis wrote several documents and reports detailing the frameworks he would engineer.



Lead Software Engineer

Agency360

February 2016 – January 2018

Agency360's main product is Field Training Software which is utilized by many police departments throughout the country. It is adaptable to many training programs, with several customizable default templates.

- Dennis was a full stack software engineer, shipping code on the frontend with AngularJS, an API using ASP.NET Web API 2, with a SQL Server database. Dennis took ownership of an already existing product and made many improvements from the ground-up to solve problems related to efficiency and user experience. He completely rewrote and refactored the authorization/authentication system. Dennis utilized LINQ to SQL in a database-first Entity Framework environment to make efficient, small queries. He broke out many direct endpoint-to-database calls, utilizing a service on the API instead. Dennis introduced event logging using NLog, and an audit trail for the database to better track down and diagnose problems.
- The Website, API, and Database were deployed and managed by Dennis as cloud-native items on Microsoft Azure. Dennis consistently interacted with customers, performed screenshares to train on both basic and in-depth functionality, and diagnosed issues customers were having. As Agency360 utilized Microsoft's government/high-security servers, something that had little to no community support, Dennis communicated directly with Microsoft Support directly to resolve issues specific to the unique implementation Agency360 had.
- Dennis was a key factor in increasing the customer base exponentially, within a year. He did this by aiding the company in hyping up the new web app and talking to various customers about the product and how much of an improvement it was over other products on the market.



Software Engineer

International Medical Group

July 2015 – December 2015

IMG was a short role in which Dennis was brought on to assist the lead architect in developing a new, modern framework. However, this endeavor was cut short as the lead architect ended up leaving the company shortly after Dennis joined. This did not stop Dennis from making an impact on International Medical Group during his time.

- Dennis investigated and solved numerous months-old tickets that were troubling the development team. He picked up various tickets where comments were made on the ticket history that showed that the developer didn't know how to solve the problem. Dennis used his analytical skills and solved them himself, despite being new to the particular codebase of IMG. This involved a deep diving into the code along with robust testing.
- New features on an ASP.NET MVC2 project, and a webforms ASP.NET project, were both engineered by Dennis. Dennis worked with QA to get expedited, quality solutions. He created new endpoints on a RESTful Web API. Dennis learned AngularJS very quickly and used it to make a simple web application to replace an existing Webforms application, setting the groundwork for future development. He debugged and modified a few existing SQL Server tables and stored procedures, as well as created new ones.
- Several endpoints utilizing Python and Flask by Dennis. He encouraged a test-driven development pattern. He encouraged new developers to make tests for their new features, as well as run old tests to ensure their new changes didn't result in anything unexpected.
- International Medical Group's various coverages and riders used an abstract factory pattern along with a behavioral strategy pattern to define various validation strategies with various coverages and how they worked with other coverages. Dennis utilized this pattern in his software engineering.



Software Engineer

Defenders

June 2014 – July 2015

Defenders is an ADT home security provider, and Dennis was hired as a mid-level software engineer, to assist in their internal accounting software.

- Dennis was given the nickname “The Detective” for being able to deep dive into an application or framework he had never looked at before, and quickly diagnose and solve a problem. For example, a very old ASP.NET website executed a batch process in an all-or-nothing manner. If one transaction failed, the entire process would seize, and if you ran the process again, many early transactions would be double-posted. Dennis’ solution was to convert this process and several like it into a queue system that would continue if a single entity failed. The queue system would then automatically retry the failed entities.
- Several movements to modernize Defenders’ software engineering environment were spearheaded by Dennis. When Dennis started, many tests and engineering were done directly against the production environment using production data. If data was handled in error, it had the potential to affect real customers. This is why it is considered good practice to engineer using a test database with mock data. As part of this, Dennis also created a logging system for every accounting App using NLog, architecting a structured system that was easy to query. This made it much easier to diagnose problems.
- When Dennis started, there was an endeavor to make Defenders PCI Compliant. This is a security endeavor that affects who is allowed to access the database/API and how credit card numbers are stored. Dennis’ engineering was a key part of this endeavor, and drastically made Defenders more secure with important consumer information.
- Dennis maintained and added new features to many websites, batch processes, and APIs that interacted with a Great Plains generated database, that included several custom stored procedures and tables.



Junior Software Engineer

Leaf Software Solutions

October 2012 – June 2014

Leaf Software Solutions is a consulting firm in Indianapolis. Dennis was brought on to work exclusively on the NextGear Capital project; a company that specialized in making internal software for car dealerships.

- Dennis maintained an ASP.NET web application with an MVC3 platform that managed titles from dealers and multiple states. This software is what Dennis and his team specialized in. At the time, it was probably one of the most complex pieces of software he had ever seen, with most of the rules and logic being in a SQL Database.
- This was Dennis' first foray into "pair programming"; which he did heavily with his team, learning and engineering alongside them. It was also Dennis' first time working in an environment where code reviews were taken very seriously; he learned and contributed to a large environment where everything checked in was carefully code-reviewed.
- An entire custom logging system was replaced by Dennis in all aspects of the software with a framework called log4net. He wrote a workflow that pulled the configuration from a database so that we could adjust the log levels for us and the client without requiring a rebuild and deployment.
- Dennis worked on new development using a RESTful API. He created several endpoints and repaired several others. He also maintained an existing webforms application that managed loans for used car dealerships.



Junior Software Engineer

Evanced Solutions

August 2011 – October 2012

Evanced Solutions is a software development company that carves out a unique niche; they make internal software for libraries. Dennis worked on two major projects: “SignUp”, which was event scheduling software, and “Peek-A-Book”, which showcased children’s books.

- “SignUp”, under the hood, was an ASP.NET Web application that utilized VB.NET, as well as jQuery, AJAX, and Telerik controls. The purpose of this application was to provide libraries with an in-depth way to schedule and maintain events. Dennis helped write new features while debugging existing ones.
- Dennis created and maintained Peek-A-Book. Under the hood, it was an ASP.NET MVC 2 web application with a VB.NET code behind, utilizing JQuery and AJAX. This product featured two interfaces. One was what customers of a library would see—an interface that would showcase children’s books and play a promotional, children-friendly video on each. There was also an administrative aspect that provided a Netflix-like interface that showed users what the top-viewed books were.
- Unit Tests were engineered by Dennis. These utilized the NUnit framework and Moq to help the team test the code and ensure the application would be easier to maintain. He created and maintained several LINQ queries to form a “Model” framework, which reduced the total development time on the Data Access portion of the application.
- Dennis also helped create much of the backend of a mobile application for reserving timeslots on rooms. This included web services that accepted passed-in JSON objects and returned objects based on logic.
- Dennis constantly communicated with Support, Testing, Management, and other developers to fine-tune Evanced Solutions’ software, maintain standards, and ensure everyone’s code was readable and accessible to everyone else. This included daily stand-up meetings and bi-weekly iteration meetings. Evanced Solutions is an Agile shop, so his assignment could change at the drop of a hat.



Junior Software Engineer

Helios

January 2011 – June 2011

Helios is a company that makes Point of Sale software for Tanning Salons. Dennis worked primarily on converting their old web application into a new one that was more modern at the time, as well as internal software used by all assets of the company, including technical support.

- Several ASP.NET 2.0 pages with VB.NET code-behind were converted into event-driven Silverlight pages with a C# code-behind, by Dennis. He completely rewrote an administrator tool to be more mobile-friendly and to better match an earlier, non-web-based version of the tool. The entire development team and many customers used this tool, so allowing easy access from a mobile device saved hundreds of manhours. It was also very convenient for new users to not have to install the tool, but simply access it from the web.
- Dennis communicated with support, testing, and other developers to gather specific requirements for areas of software functionality. This often included sitting with other people and prototyping/demoing existing or new functionality with a goal of gathering requirements for how the piece of software not only functions, but also looks and feels.
- Dennis added, rewrote, and optimized several SQL Server Stored Procedures, accessed by web services used in many assets and facets of Helios' framework. He rewrote them with readability and simplicity in mind. Dennis has always believed code should be like poetry; while it isn't written like we would write plain English; the meaning should be easily understood by an engineer reading it for the first time.



Business Intelligence Engineer

Solutions Plus Consulting

September 2010 – January 2011

Solutions Plus Consulting was a small startup company, a normally one-man operation. The proprietor contracted himself out to perform Business Intelligence engineering; essentially drafting complex and reusable reports for other companies. His workload was getting too large for him to handle; so, he hired Dennis to help ease his workload a bit.

- Dennis developed reusable Crystal Reports based on information stored in a SQL Server Database. This both included diagnosing and deducing where the information was coming from, as well as formatting the information so that it looked presentable to the 'customers', which were usually internal employees to the client. This usually involved gathering requirements from customers, followed by prototyping reports to the same customers.
- Several views in a SQL Server Database were engineered by Dennis to better aid in the development of reports. These views would make it, so the reports were efficient and put minimal load on the server. They also allowed for future reports to take advantage of them, aiding in the long-term development process.



Automation Engineer

Interactive Intelligence

January 2007 – September 2010

Interactive Intelligence was a telecommunications software and cloud computing development company that provided unified business communications solutions for call centers. Dennis worked as an Automation Engineer, an engineer who wrote testing script suites to regression test Interactive Intelligence's software.

- The script suites for various automated tests were engineered by Dennis using Test Complete, using Perforce for source control. Dennis targeted the various aspects of Interactive Intelligence's software; both web-based and application-based. Dennis reported bugs when found.
- Dennis would communicate with and work with Developers to identify and diagnose bugs, using his growing knowledge of the software to reproduce and aid said bugs. He also regularly communicated and worked as a member of the Automation team, sharing better practices and ideas for streamlining the various scripts.
- Dennis used, maintained, and helped grow a vast automation framework to further ease the testing process for the entire team. This involved identifying common controls, such as buttons and input fields; then developing a common framework that could be used and understood by all other automation engineers, including new ones brought on to the team.



Software Engineer / Technical Support Representative

CSINet Internet Access Corp.

October 2004 - August 2005

CSINet was an internet service provider that was also on the lookout for other opportunities. An example of one of those opportunities was purchasing OrthoScape, a practice management system for Orthodontic Offices, which Dennis further engineered. It's this opportunity where Dennis 'cut his teeth' in his future career as a Software Engineer.

- Application code for an orthodontic practice management application was tested and debugged by Dennis. Dennis also performed a visual redesign of the software, as well as implemented several bug fixes. Dennis designed and maintained documentation for a database entity relationship diagram and implemented a robust user interface to the application backend.
- Dennis provided end users with technical support for many different applications, including Windows, Office, and Outlook. This responsibility also included the learning and use of technical support documentation and communication management software, as well as troubleshooting through various operating systems and hardware choices.



Software Engineer

Bleak LLC.

August 2004 – May 2021

Last but certainly not least, Bleak LLC is a small company founded by Dennis and a friend from college, Jamal Khan. Dennis and Jamal were dreamers when they founded this company whose primary goal was to improve their knowledge of Software Engineering and challenge themselves by taking on side jobs. Various local software engineers joined Bleak throughout the years. Dennis amicably left the company he helped found when he moved across the country for family reasons.

- The frontend and API of a web application that would act as an administrative panel for a backend was developed by Dennis. This backend would send triggered email sends in reaction to the successful processing of a CSV file. This utilized a modern Angular (2/4) frontend with an Azure Functions middle-tier. Dennis was praised for being able to ship a modern, functional website very fast. Dennis as part of this developed a folder view in Angular 2/4 that allowed customers to search a directory tree, as well as have an existing directory tree already selected on page load.
- Dennis worked on a unique system that used a combination of the ASP.NET MVC 4.0 WebAPI platform on the server side, with HTML, sammy.js, JavaScript, and CSS on the client side. The client-side library used “icanhaz” and “mustache”, two lightweight JavaScript Libraries. Dennis developed a system that would generate client-side jQuery validation based on server-side data annotations. Dennis also implemented a small JavaScript library called “uploadify” for multiple image uploading, which was challenging considering there wasn’t much documentation for implementing it using simple AJAX calls to an outside Microsoft WebAPI. The database was Mongo driven.
- Dennis assisted in developing the core system framework used by Bleak for over a decade, on various projects, dubbed “bleak PRIME”. It was the core of Bleak's software portfolio and enabled a small development team to follow simple, yet elegant coding patterns to maximize their efficiency and greatly reduce the tasks required to establish new functionality, subsystems, and applications. PRIME was built in C# using many .NET technologies and concepts including ADO.NET, Reflection, and GDI+.



Bleak LLC. (cont'd)

- Dennis developed various modules for an online community-based website using ASP.NET MVC, and C#. He and a small group of people were contracted to develop internal and external websites for various customers using ASP.NET and C#.
- In the early days, Dennis designed and developed a time clock and attendance system using Winforms and C#. He was primarily involved with database design, requirements specifications, and application development. He was the main developer for various modules and classes.
- Dennis also invested time into video game development and design using various frameworks as independent game development evolved. He's used Allegro, XNA, Unity, and Godot to design several robust components, areas, and systems of various games.
- As part of his projects, Dennis developed user interface templates, file format specifications, Gant charts, entity relationship diagrams, use case diagrams, data flow diagrams, UMLs, and other documentation as required. Dennis worked with Visio, Project, and ERWin Platinum to help develop these documents.