
Summary

A driven .NET developer with experience in a wide range of Microsoft technologies. An enthusiastic high achiever with a passion for continuous learning.

Core Technical Skills

.Net Technologies and Languages: ADO.NET, ASP.NET, C#, Entity Framework, MVC, SignalR, VB.NET, Web Forms, Xamarin

Web Technologies and Languages: AJAX, Angular, Bootstrap, CSS, HTML, JavaScript, JSON, jQuery, PHP, XML

Database Management Systems: MySQL, SQL Server

Development Tools: SQL Server Management Studio, Team Foundation Server, Visual Studio IDE, Visual Studio Code

Azure Cloud Services: Application Insights, App Service, Content Delivery Network, Service Bus, SQL Database, Storage

Web Servers: IIS, Apache

Experience

- American Academy of Sleep Medicine** **Darien, IL**
Programmer *01/2016 – Present*
 - Overhauled a legacy web application dedicated to improving sleep study scoring consistency for sleep technologists. This ASP.NET Web Forms application was developed using VB.NET, ADO.NET, and MS SQL Server.
 - Upgraded the administrative dashboard to a customized version of Bootstrap 3.
 - Developed an internal notification system to reduce reliance on external emails.
 - Integrated with amCharts for better graphical representation of collected data.
 - Migrated from Telerik reporting to jsreports for deeper report customization.
 - Simplified the registration and subscription processes.
 - Provided ongoing maintenance and developed new features for the professional version of the AASM SleepTM telemedicine platform built with ASP.NET Web Forms. This n-tiered application was created using VB.NET, ADO.NET, MS SQL Server, SignalR, and WebRTC.
 - Integrated Stripe Connect to allow users to accept client payments.
 - Created a medical history collection component with a Clinical Document Architecture Release 2 formatted export feature.
 - Migrated static content to a CDN.
 - Implemented an Azure Service Bus backplane to facilitate seamless application deployment slot swapping without severing SignalR connections.
 - Designed and implemented a lightweight version of the AASM SleepTM telemedicine platform with ASP.NET MVC 5 using C#, Entity Framework 6, SignalR, MS SQL Server, and WebRTC.
 - Developed Android and iOS applications that integrate with the AASM SleepTM telemedicine platform using Xamarin.Android, Xamarin.iOS, SignalR, and WebRTC.
 - Provided ongoing maintenance for a console based VB.NET application that uses XSLT transformations to convert XML into HTML for both web-based and Kindle publications.
 - Freelance Web Developer** **Glen Ellyn, IL**
Web developer for various clients *06/2012 – 06/2014*
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Education

- University of Illinois at Springfield** **Springfield, IL**
M.S. Computer Science (GPA: 4.0 out of 4.0) *08/2013 – 12/2015*
- Purdue University** **West Lafayette, IN**
M.S. Civil Engineering (GPA: 4.0 out of 4.0) *08/2003 – 12/2004*
- Oregon State University** **Corvallis, OR**
B.S. Civil Engineering (GPA: 3.89 out of 4.0) *09/1998 – 03/2003*

Project Highlights

- **Sleep ISR Upgrade** isr.aasm.org
ADO.NET, ASP.NET 4.0, MS SQL Server, VB.NET, Web Forms 05/2018–Present
A web application dedicated to improving sleep study scoring consistency for sleep technologists (upgrade launched: 09/04/2018).
- **AASM SleepTM Android App** play.google.com/store/apps/details?id=com.aasm.sleepm
Xamarin.Android, C#, SignalR, WebRTC 08/2017–Present
An Android application that integrates with the AASM SleepTM telemedicine platform allowing patients to engage in telemedicine encounters using an Android device (launched: 09/11/2017).
- **AASM SleepTM iOS App** itunes.apple.com/us/app/aasm-sleepm/id1253586517?mt=8
Xamarin.iOS, C#, SignalR, WebRTC 04/2017 – Present
An iOS application that integrates with the AASM SleepTM telemedicine platform allowing patients to engage in telemedicine encounters using an iOS device (launched: 07/31/2017).
- **AASM SleepTM Select** sleepm.com/
ASP.NET 4.5, C#, Entity Framework 6, MS SQL Server, MVC5, SignalR, WebRTC 10/2016–Present
A light weight version of the AASM SleepTM sleep-specific telemedicine platform that focuses on a simplified telemedicine encounter process (launched: 04/20/2017).
- **AASM SleepTM Pro** sleepm.com/
ADO.NET, ASP.NET 4.5, MS SQL Server, SignalR, VB.NET, Web Forms, WebRTC 01/2016–Present
A full featured, HIPAA compliant telemedicine platform developed specifically for sleep doctors.
- **Elavon Converge Payment Gateway for WooCommerce** jacobmddavidson.com/converge/
PHP, WooCommerce, WordPress 09/2012–10/2016
WordPress plugin that adds a Converge payment gateway to WooCommerce (an eCommerce solution for WordPress).
- **Professional Engineering License Manager** jacobmddavidson.com/pelicensemanager/
Joomla, MySQL, PHP 08/2012–02/2018
Membership based web application built on the Joomla content management system that helps engineers manage continuing education requirements for professional engineering licenses.
- **Computer SMS Android and Desktop Applications** jacobmddavidson.com/computersms/
Android, Java 10/2015
Send and receive SMS text messages through an Android phone using a desktop application connected to the same local area network. Includes multicast DNS to simplify service discovery, XML message passing, and AES-128 message encryption derived from a Diffie-Hellman key exchange.
- **Surveying Coordinate Transformation** jacobmddavidson.com/coordinate-transformation/
C#.NET 08/2014
Created for the survey department of Patrick Engineering, Inc., this WPF application transforms survey coordinates from one coordinate system to another using the least squares methodology.
- **SMorSe for Android** jacobmddavidson.com/smorse/
Android, Java 07/2014
Converts incoming SMS text messages to Morse code based on the ITU-RM.1667-1 recommendation, and plays or vibrates the message in accordance with the volume settings of the phone.