**Nicholas Yang**

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**SUMMARY**

* **Full Stack Developer** in both front-end and back-end software engineering with particular focus on **.NET technologies** in various domains including healthcare and finance.
* Working experience in **Angular 4, 5, 7, 8 and 9** developing services, modules, components, directives, custom directives, routing, and performed validations.
* Solid understanding in **single page applications (SPA)** development using the **Angular** framework, **Bootstrap**, **jQuery,** and **AJAX**, which allows a program to function without page reloads.
* Experienced in designing the UI with **HTML5,** **CSS3,** **Bootstrap,** and **Angular** **material**.
* Expertise in Web based languages such as **HTML5, CSS3, JavaScript, jQuery, JSON,** and **XML** with framework.
* Experienced in .NET technologies including **ASP.NET, ADO.NET, Web Forms, LINQ to SQL, Entity Framework 6,** and **MVC 5.**
* Strong experience in developing .NET applications using **Web services, Windows Communication Foundation (WCF),** and **Web API.**
* Hands on experience in design and development of applications using **Object Oriented languages**, including **Microsoft C#** used in **ASP.NET** and **Typescript** in **Angular** projects.
* Proficient in both **N-tier** and **Onion architecture**, allowing for separation of concerns in projects that require RDS data.
* Expertise in **SQL Server**, writing **Stored Procedures, User-Defined Functions (UDF), Views, Indexes, Triggers, Joins,** and other Complex Queries using **T-SQL**.
* Expertise in creating SQL server reports using **SSRS**.
* Skilled in writing programs that can read and manipulate **JSON** script as another means of packaging data to be used in projects.
* Used **postman** to simulate and debug **Web API** and **SOAPUI** to test the **WCF** and **Web Service** based application.
* Demonstrated version control using **SVN, Bit Bucket** and **Git** via GitHub to allow contributions from team members into projects, as well as highlight progress, and issues.
* Successfully participated in software methodology such as **Agile (Scrum), Test-driven development (TDD),** and **Waterfall** methodologies.
* Self-motivated, collaborated with team, worked under high pressure, worked in several projects simultaneously, dynamic problem-solving, adept at working with minimal to supervision, and worked with highly-caliber teams of professionals.

**TECHNICAL SKILLS**

**Web Technologies**: HTML5, CSS3, Typescript, jQuery, Angular 4, 5, 7, 8, 9, Bootstrap, Angular Material, PrimeNG.

**Programming**: Microsoft C#, JavaScript, T-SQL.

**.NET**: ASP.NET, ADO.NET, Web Forms, MVC 5, Web Services, WCF, Web

API, Entity Framework 6, LINQ, Visual Studio 2015-2019.

**Database**: SQL, Microsoft SQL Server Management Studio 2012-2018, T-SQL.

**Others**: Git, SVN, XML, JSON, AJAX, RESTful, Postman, SDLC, Agile, Scrum,

Bit Bucket, Swagger Ui, VS Code, Jasmine, Karma.

**EXPERIENCE**

**International Brotherhood of Electrical Workers Washington D.C.**

**Full Stack Developer (Angular8&9/NGRX6&8/Web API) August 2019 - Present**

The IBEW represents approximately 775,000 active members and retirees who work in a wide variety of fields, including utilities, construction, telecommunications, broadcasting, manufacturing, railroads and government. The IBEW has members in both the United States and Canada and stands out among the American unions in the AFL-CIO because it is among the largest and has members in so many skilled occupations. The project develops a web-based application to help pension and per capita department auditors and report viewers to process per capita reports and pension trasactions and view the member and local union information. Angular 8, NGRX 8, ASP.NET Core and MS SQL are used in the project.

**Roles and Responsibilities:**

* Involved in the complete **Software Development Life Cycle** including Analysis, Design, Implementation, Testing and Maintenance.
* Cooperated with IMD team members to improve the performance of system and add new routes and unit test cases by using **NUnit** and **NSubstitute** to improve the testability and maintainability of the system.
* Used **HTML5, CSS3, Angular, Angular Material, Forms, Bootstrap,** and **Typescript** at the front-end to provide design, styling and logic for the project and apply responsive design on the IMD web application on different platforms with different screen size.
* Experienced in implementing **authentication** and **authorization** by using **route guards**. The project requires to check users’ claim based on the **JSON Web Tokens (JWT)** to allow users to access different parts of the system and also view full or partial SSN.
* Designed and implemented customized **server-side/client-side pagination, sorting, grouping** and **filter** on **Angular Material** tables (with expandable rows) for different data sources.

* Experienced on different types of data binding in angular, such as **String Interpolation, Property Binding, Event Binding,** and **Two-Way Data Binding**.
* Used Observable from the **RXJS** library in the Angular to enable **subscription** in the components.
* Implemented client-side validation by using **Angular Form Validation** and **regular expression** when we need users’ input.
* Implemented client-side state management by using **NGRX 8**, such as **Actions, Effects, Reducers** and **Selectors**. And also worked on migration from NGRX 6 to 8.
* Experienced on Web API and created web application, worked on CRUD operations (HTTP get, post, put and delete), attribute routing, and used HTTP Response Message approach.
* Enabled **CORS** to allow communication between the front-end Angular project and the back-end Web API functionality.
* Utilized **Onion Architecture** to allow for separation of concerns and minimize coupling.
* Used **Dependency Injection** to promote reusable code and ease of maintenance.
* Involved in the writing complex queries, function and stored procedures to provide data from database.
* Used **Swagger UI** to visualize and interact the Web API to ensure proper functionality of the backend.
* Refactored from **PrimeNG** to **Angular Material** and **Bootstrap**.
* Used **Bit Bucket** for version control and code merges.
* Worked in an **Agile** team and used **JIRA** for task management.

**Environment:** C#, Visual Studio 2017&2019, ASP.NET4.5, Web API, Angular8&9, LINQ, HTML5, TypeScript, CSS3, JSON, SQL Server 2017, Agile, Swagger UI, Bit Bucket, NUnit and NSubstitute.

**ProSight Specialty Insurance Group Morristown, NJ**

**Full Stack Developer (Angular4&7/Web API) May 2019 – July 2019**

ProSight Specialty Insurance Group, Inc. is a private specialty insurance company based in Morristown, NJ. ProSight Health Plans Insurance Management System is fully automated and integrated application for managing the Policy plans, Agent Commission, incurred but not paid and Settlements. This Insurance Management System manages different claims per policies, claim settlements, and allows coverage verifications. I was involved in developing the claims management system and designing the front-end for management system.

**Roles and Responsibilities:**

* Involved in the complete **Software Development Life Cycle** including Analysis, Design, Implementation, Testing, and Maintenance.
* Created Angular **components, modules,** and **services** to separate and decouple the different features of the project and to allow certain functionalities to be replicated throughout, such as employing Web API.
* Used **HTML5, CSS3, AngularUI Bootstrap, Angular Material, Forms,** and **Typescript** at the front-end to provide design, styling, and logic for the project.
* Experienced in implementing **authentication** and **authorization** by using the help of **route guards** and **interceptors**. The project requires email and password to check the credentials and used the **JSON Web Tokens (JWT)** to check the authorities of the users.
* Implemented pagination for the claims page by using **Angular ngx-pagination** and search filter by creating a custom **filter pipe**.
* Created angular **services** to serve for different functions, such as data services, account services, and route guard.
* Experienced on **Web API** and created web application, worked on **CRUD** actions **(HTTP get, post, put,** and **delete)**, attribute routing, and used **Http Response message** approach.
* Accessed and updated data through **RESTFUL services** using **JSON** as the main request/response format.
* Enabled **CORS** to allow communication between the front-end Angular project and the back-end Web API functionality.
* Implemented **LINQ-to-Entities** queries operate on the entity set (DbSet type properties) to access the data from the underlying database.
* Implemented **code first approach** with **entity framework** to build connections between Web API and database.
* Designed and developed databases which include the development of **functions, stored procedures,** and **triggers** using **T- SQL**.
* Implemented **Jasmine** unit tests for Angular and used **Karma** to run the tests for **Behavior Driven Development (BDD)** Purpose.
* Used **Postman** to test the Web API to ensure proper functionality of the backend.
* Managed all development tasks and source code modifications via **Azure DevOps** and **Git**.

**Environment:** C#, Visual Studio 2017, ASP.NET4.5, Web API, Angular4&7, Entity Framework 6, LINQ, HTML5, JavaScript, CSS3, AJAX, JSON, jQuery, SQL Server 2018, Agile, Postman, Git, Azure DevOps, Jasmine, and Karma.

**Social Interest Solutions Sacramento, CA**

**Software Developer (Angular5/Web API) March 2018 - April 2019**

Social Interest Solutions is a national nonprofit dedicated to improving access to quality health and social services through policy and technology solutions. Health-e-Arizona Plus which is an on-line application for Arizona Residents. This application provides services to users to apply for medical coverage through AHCCCS, Nutrition Assistance (formerly known as the Food Stamp program), and Cash Assistance. Health-e-Arizona Plus is used even for existing customers or for those who are currently receiving benefits. I was involved in implementing the functions for user to create application for medical coverage and the management of applications.

**Roles and Responsibilities:**

* Involved in requirement analysis, design, and development of Web application.
* Implemented data exchange between components by using **Angular, @Input,** and **@Output**.
* Experienced in different types of data binding in angular, such as **String Interpolation, Property Binding, Event Binding,** and **Two-Way Data Binding.**
* Used **Observable** from the **RXJS** library in the Angular service layer to enable **subscription** in the component.
* Implemented **Angular material dialog** for users to create new applications.
* Created input fields with autocomplete for user input by using autocomplete in **Angular Material**.
* Implemented client-side validation by using **Angular form validations** when we need users’ input.
* Created different business classes and interfaces using .NET Framework 4.5 with Object Oriented Programming Methodology.
* Expertise in creating **JSON Web Token (JWT)** role-based authentication in **OWIN-based** web application.
* Enabled **Content Negotiation** to allow Web API to request and response in different representations and formats.
* Implemented business logic using **Action Filters** like authorization filters, action filters, and exception filters.
* Used **bundling** to improve application performance.
* Utilized **Onion Architecture** to allow for separation of concerns and minimize coupling.
* Used **Dependency Injection** to promote reusable code and ease of maintenance.
* Implemented **Unit Test** classes for business class methods to check all possible conditions worked with test data provided using MOCK objects.
* Used **Git** from **GitHub** for version controls and code merges.

**Environment:** Visual Studio 2015, .NET Framework 4.5, SQL Server 2014, C#, Web API, HTML5, CSS3, Bootstrap 4, Angular5, JSON, TSQL, and Unit Test.

**Albina Community Bank Portland, OR**

**Software Developer (MVC 5) March 2017 - February 2018**

Albina Community Bank is a Certified Community Development Financial Institution (CDFI) with a mission to increase economic opportunity and promote community development. The project is to develop an online investment management platform for corporations. The platform offers investment options such as stock, ETFs, mutual funds, and bonds. Users could create accounts and are able to choose from all the investment options. I was involved in implementing the functionalities for users’ searching products and managing their stock, ETFs, mutual funds, and bonds.

**Roles and Responsibilities:**

* Involved in **SDLC** of the project from Design, Development, and Testing in **Agile Scrum** Methodology.
* Developed Views, Partial views using **ASP. NET** **MVC** and used **MVC Routing** rules to match the URLs of the incoming request.
* Used **JavaScript, jQuery,** and **Ajax** to implement filters with sliders for the Users’ search purpose.
* Created user input field with autocomplete by using **AJAX control** and **jQuery UI.**
* Employed **Layout** page and multiple **partial views** to combine the views as a single view when launched and refreshed.
* Utilized **Onion Architecture** to allow for separation of concerns and minimize coupling.
* **Repository Pattern** is used to build the project by combining **service-oriented** applications. Most notably, the service employs **Unit of Work** to provide the functionality to the rest of the object.
* Applied **data annotation** to models in order to add constraints to database when using **data first approach**.
* Implemented conventions between objects with dissimilar types by using **AutoMapper**.
* **SQL** statements were used to obtain the appropriate data from database. For example, it is used in filtering the database during a search.
* Used **MS SQL Server** to create the tables and sample data via **SQL** commands. The sample data were used to test the application.
* Prepared **unit test** cases and performed **N-Unit Testing** prior to system implementation and wrote test cases for testing the code based on the requirements and involved in the **Unit testing, Integration Testing,** and **Regression Testing**.

**Environment:** Agile (Scrum), Windows, C#, .NET Framework, ASP. NET MVC 5, HTML5, CSS3, JavaScript, jQuery, AJAX, JSON, XML, SQL Server, T-SQL, Visual Studio 2014, Unit Test, and Entity Framework 6.

**AllCare Health Grants Pass, OR**

**Software Developer (MVC 5/WCF) September 2016 - February 2017**

AllCare Health is an integrated health organization based in Southern Oregon. The project is a web based 3-tier software platform for the marketing departments to facilitate their recruitment and placement activities on line. Job requirements were standardized, candidate profiles, client requirements, and information are stored in database. The software provided for querying the database on the basis of the Job criteria. I was involved in developing Information Management System and payroll system.

**Roles and Responsibilities:**

* Involved in the complete **Software Development Life Cycle (SDLC)** for development process and **Agile** including Analysis, Design, Implementation, Testing, and Maintenance.
* Developed an application that combines the concepts of **ASP.NET MVC** and **Onion Architecture**.
* Employed **JavaScript, jQuery,** and **AJAX** to enable searching and filtering of candidates without needing to reload the page. The functionality is connected to the front-end through **WCF**.
* Experienced in data exchange between view and controller by using **ViewModel, strongly typed views, ViewBag,** and **ViewData**. Used **TempData** to pass data between controller actions.
* Implemented **routing** and **authentication** for easy navigability and security through a username and password coupled with Form Validation.
* Created endpoints for WCF to build the runtime communication channels to send and receive message by using **address, binding,** and **contract (ABC)**.
* Demonstrated **create, read, update,** and **delete (CRUD)** functionalities for hire requests and recruitments.
* Created queries to different data resources by using **LINQ** and **Lambda Expression**.
* **Entity Framework Database First approach** was used to allow the program to connect with the database.
* Created client-side validations with JavaScript and server-side validations with **ASP. Net 4.5.**
* Used **SoapUI** to test the WCF to ensure proper functionality of the backend.

**Environment:** ASP. NET, C#, ADO. NET, Entity Framework 6, HTML5, CSS3, JavaScript, jQuery, Bootstrap, AJAX, ASP.NET MVC5, LINQ, Web API, SQL Server, XML, JSON, and SoapUI.

**Dalian Huiyuan Electronic System Dalian, Liaoning, China**

**Software Developer (Web Forms) August 2015 - August 2016**

Huiyuan Electronic System is an electronic company set up in 1995 that is now based in Dalian City. The company helps hospitals and clinics to build hospital information system. Clinic Management System stores and manages patients' and medicine information such as the electronic medical records (EMR) and medicine management system. I was involved in developing the information and records management system.

**Roles and Responsibilities:**

* Involved in requirements gathering, design, architecture, programming, testing, and implementation of the application.
* Developed an **ASP. NET Web Form** application in Visual Studio using the **test-driven development (TDD)** approach based on **3-layer architecture**.
* Implemented searching and filtering of medicine information using **JavaScript** and **AJAX**.
* Involved in building flexible UI, more user interactive, and user-friendly web pages, reusable classes, functions using **Web Form, C#,** and **JavaScript** for client-side validation.
* Created buttons with similar styles and functions automatically with **Repeater Control**.
* Experienced in using **ADO.NET** which includes building connections to database by using **SqlConnection** with connection string and using **DataReader** and **DataAdapter** to fetch data from database.
* Implemented **Dependency Injection** with constructor injections for loosely coupled components using IOC container.
* Followed **Agile (SCRUM)** methodology, where progress and task assignment are discussed in everyday meetings.
* Involved in **Unit testing** using MS testing and **integration testing** of the entire application.

**Environment:** ASP. NET Web Forms, ADO.NET, AJAX, jQuery, Agile (Scrum), Unit test, Visual Studio 2012, SQL Server 2008, JavaScript, C#, TDD, and Unit Test.

**EDUCATION**

Master Degree, Computer Science, Corvallis Oregon.