BATMANLAI TSOGT | 201-243-8032 | btsogt1971@gmail.com

Software Engineer with over a year of experience in full-stack development, specializing in MVC and N-Layer architecture across presentation, business, and data access layers. Skilled in backend development with ASP.NET 6, C#, and Entity Framework Core; front-end development using Angular 15, HTML5, CSS, Bootstrap, and Javascript/Typescript; and unit testing and API documentation with Moq, MS Test, and Postman. Proficient with GIT for source control. Additionally, adept in data engineering, analysis, and visualization using Python and R, with experience building ETL pipelines, conducting multivariate analyses, and crafting informative visualizations.

EDUCATION

AMHERST COLLEGE	Amherst, MA
BA in Astronomy, Major GPA: 3.5	Awarded May 2021

SKILLS

.NET Tech	Web Tech	ORM/Databases	IDE/Testing	Data Tech	Other
C#	HTML5	EF Core	VS Code	Python	Agile (Scrum)
ASP.NET Core	CSS3	SQL Server 2019	Visual Studio 21	Jupyter-	GIT
ASP.NET MVC	JavaScript	PostgreSQL	Azure Data Studio	Notebook	
ASP.NET Web API	TypeScript		SSMS	Pandas	
LINQ + Lambdas	Bootstrap		MS Test	MatPlotLib	
	Angular 15		Moq	SciPy	
			Postman	Plotly	

WORK EXPERIENCE

ANTRA	Naperville, Illinois
Software Engineer	June 2022 – November 2022

Designed and developed a customer self-service portal in ASP.NET Core from the ground-up. It has the capability to offer hundreds of movies for purchase, display information regarding individual movies, group movies by genre, perform CRUD operations on databases, and provide a platform for customers to save favorites and share reviews. The backend is a typical N-layer architecture with the use of dependency injection where necessary. The frontend uses single page architecture and is implemented through Razor views containing both client and server content.

Responsibilities:
- Worked in an Agile methodology environment, participating in regular scrum meetings to plan, track, and organize development.
- Used Entity Framework code-first approach and LINQ for object-relational mapping with data in SQL server database. Designed database objects such as tables, indexes, constraints, procedures, user-defined functions, etc.
- Implemented user authentication and authorization using action filters and cookie-based authentication in ASP.NET Core Web API
- Implemented CRUD functionality using Repository Unit of Work Pattern when developing MVC Controllers, Repositories, and Services.
- Created informative razor-views and webpages to display movie information using HTML, CSS (bootstrap), and Javascript. Used Viewbag and Viewmodels to transfer data between views and controller.
- Used Git for source code management and version control and used Azure CI/CD for builds and continuous integration.
- Used MS Test to unit test and Moq to mock methods using interfaces defined with dependency injection. Tested APIs using Postman.

Environment: Visual Studio 2021, ASP.NET Core, ASP.NET Web API, Entity Framework Core, HTML5, CSS3, Bootstrap, SQL Server 2019, Git, Agile (Scrum)

BATANUGAN	Ulaanbaatar, Mongolia
Software Engineer	September 2021 – Present

Designed and developed a patient management MVC application in ASP.NET. It allows doctors to communicate with their patients securely, share lab results, set appointments and more. It also allows users to generate charges directly from the calendar, eliminating manual data entry. The reporting feature allows users to manage all aspects of the revenue cycle as well as other clinical and appointment reports. Doctors and hospital staff can quickly

generate an electronic prescription for their patients and share it with them and their pharmacy. Patients can view their balances and receive statements electronically in their system.

Responsibilities:
- Participated in regular scrum meetings and sprints following Agile methodology during development.
- Created and maintained Relational Database Models and Data Access Layer using Entity Framework Core Code-First approach
- Wrote T-SQL Queries whilst creating views and stored procedures in SQL Server. Utilized joins and unions to retrieve data from a variety of tables.
- Utilized dependency injection to simplify management of controllers and scopes.
- Used Viewbag, Viewmodels, and Partial views to achieve data transfer between razor views and controller. Created webpages using HTML5, and CSS (bootstrap).
- Used Git for source code management and version control.
- Used MS Test to unit test and Moq to mock methods.

Environment: Visual Studio 2019, ASP.NET Core, ASP.NET Core API, Entity Framework Core, HTML5, CSS3, Bootstrap, SQL Server 2019, MS Test, Moq, Git, Agile (Scrum)

2U   **Lanham, MD**
Instructional Specialist and Centralized Grader   **October 2021 – Present**
- Graded student submissions for the Data Analytics and Visualization bootcamp, providing constructive feedback on various programming assignments.
- Assisted students in learning to apply a spectrum of data-related utilities, including but not limited to, data extraction, validation, storage, analysis, visualization, and output in Python (Pandas, PyMongo, Matplotlib, Plotly, Python APIs), basic web design in HTML and CSS, automation and scripting in VBA and Excel, JSON parsing, and Dashboards in Tableau.

CARALLEL   **Lake Forest, IL**
Market Research Intern   **June 2020 – August 2021**
- Built scalable, custom JavaScript functions to automate monthly employee exclusion list checks in Google Sheets.
- Performed Python-based quantitative analysis and visualization on pre and post survey data to gauge efficacy of caregiver support program. Identified mean improvement of 20% in key satisfaction metrics, with analysis results leveraged to expand program.
- Conducted a meta-analysis in Python on the economic impact of caregiving in the United States, writing a white paper utilizing my results. Presented findings to executive team and informed business strategy accordingly.
- Drove competitive analysis through screening market trends and competitive landscape, performing detailed analysis of competitor's business model, services, products, and financial performance, as well as reviews of competitor web design.

PERSONAL PROJECTS

Angular Portfolio:
- Constructed a dynamic portfolio website leveraging Angular's component-based structure, incorporating features like interaction, routing, and services. Utilized dependency injection to craft custom TypeScript theme functions and GSAP for intricate responsive animations. Managed DOM responsiveness with media queries and decorators, ensuring optimal user experience. Adhered to BEM methodology for structured SCSS styling. All efforts culminated in a successful deployment and hosting of the website on GitHub Pages.
  Environment: Visual Studio Code, Angular 15, TypeScript, GSAP, SCSS, HTML5, Git

Capstone Research Project: Multi-Week Observation of Star Cluster NGC 2264:
- Measured month-long photometric variability in a sample of 42 'burster' T-Tauri Stars utilizing a remote deep-field telescope. Built custom data-ingestion, storage, validation, reduction, and analysis pipelines using SciPy, Pandas, AstroPy, Scikit-Image, Specutils, and PySpecKit Python Libraries to handle collected EM data and calculate rates of mass accretion from circumstellar disks. Visualized results using Python libraries such as Matplotlib, AstroPy, and Seaborn. Found little change since the reference observation by Cody et al. 2014.