

# Mack Core

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## **Objective**

Currently studying Computing Science at Thompson Rivers University, I've built projects using .NET, C#, and NodeJS. I like tackling both the front and back end of applications and focus on writing code that's reliable and scalable. I'm seeking an internship or junior developer position where I can apply my skills and grow as part of a team.

## **Summary of Qualifications**

- Over 9 years of experience working with .NET technologies, including C#, ASP.NET MVC, and .NET Core
- Proficient in designing and developing fullstack web applications using Entity Framework, LINQ, and SQL Server
- Strong experience with relational database design, performance tuning, and writing optimized SQL queries
- Comfortable working with Entity Framework and common libraries in both .NET and Node.js environments
- Familiar with REST API development, authentication (JWT/OAuth), and third-party integrations
- Familiar with Git-based workflows and the concepts of automated testing and deployment (CI/CD)
- Adept at debugging, refactoring legacy code, and applying clean code and SOLID principles
- Worked on reverse engineering projects and custom server implementations in C# and Node.js
- Enthusiastic, self-driven, and adaptable to new technologies and agile workflows

## **Work & Volunteer Experience**

**PS3 Medius Game Server** (Reverse Engineering Project)

Jan 2024 - Mar 2025

*Fullstack .NET Developer*

**Technologies:** C#, .NET (Core), Entity Framework, Kestrel, MySQL, Wireshark, IDA Pro

- Contributed extensively to a reverse-engineered online game server replicating Sony's original Medius infrastructure
- Enhanced and maintained a custom RT packet pipeline using C# and .NET for real-time player/server communication
- Worked with a .NET middleware hosted on Kestrel to handle matchmaking, sessions, and authentication logic
- Integrated Entity Framework for managing data models and MySQL schema migrations
- Reverse engineered proprietary protocols using Wireshark and packet inspection tools to recreate server behavior
- Developed tools to assist with debugging, logging, and protocol validation
- Used Git and GitHub for source control and collaborative development workflows

**CAA Special Events Coordinator** (College Capstone Project)

Feb 2022 - May 2022

*UWP Application Developer*

**Technologies:** C#, UWP, XAML, Entity Framework, MVC, MS SQL Server

- Designed and developed a UWP application for CAA staff to coordinate and manage live special events
- Built the application using MVC architecture and Entity Framework to interact with a structured MS SQL database
- Implemented customer tracking and event scheduling features, allowing staff to monitor attendance, event progress, and participant engagement in real-time
- Developed dynamic quiz modules for each event, enabling on-the-fly customization and data collection from participants
- Added authentication logic for swiping and verifying CAA member cards on-site
- Integrated smooth and responsive UI animations using XAML to enhance usability on Windows tablets
- Delivered a polished final product used in a real-world setting during the final semester of college

### **SubZeroSnow Web Platform** (Freelance Project)

Apr 2025 - Current

*Fullstack JavaScript Developer*

**Technologies:** Node.js, Express.js, MySQL, Prisma ORM, EJS, JavaScript, TypeScript, HTML, CSS

- Developed a dynamic web application for a seasonal service company to manage bookings, clients, and administrative tools
- Built a RESTful backend using Express.js with Prisma ORM for structured MySQL database interaction.
- Designed MySQL schemas and managed database migrations using Prisma
- Implemented server-rendered frontend views using EJS with clean, responsive UI components
- Integrated session handling, form validation, and user authentication mechanisms
- Collaborated directly with the client to define requirements, iterate on features, and deploy the solution

### **Aloft Housing Web Platform** (Freelance Project)

Jan 2023 - Current

*Fullstack JavaScript Developer*

**Technologies:** Node.js, Express.js, MySQL, EJS, JavaScript, HTML, CSS

- Developed a full-featured web application for a tiny home manufacturing company to manage model listings, customer inquiries, and internal analytics
- Built a RESTful backend with Express.js, implementing custom SQL queries for data retrieval and manipulation
- Created and optimized MySQL schemas to store housing models, options, customer requests, and pricing details
- Developed data-driven features such as sales analytics and model popularity tracking
- Designed and implemented EJS-powered server-rendered views with responsive layouts and form handling
- Worked closely with the client to gather requirements, provide updates, and iterate on features from development to deployment

## **Education**

**Niagara College**

**Thompson Rivers University**

Computer Programmer Diploma

B.Sc. Computing Science

Sept 2018 - Apr 2022

Oct 2025 - Current