

# Daniel Dong

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*Software Engineer experienced in C#, .NET, and data-driven systems across cloud and modern web platforms.*

## WORK EXPERIENCE

- Software Developer** | *Samaritan Ministries International* | Peoria, Illinois July 2024 - Present
- Engineered a **recursive C# algorithm** distributing **\$2M/month** across a \$20M+/year bill-sharing program, preventing billing spikes and reducing 300+ support calls monthly
  - Built an **automated Bill-Sharing service** processing **\$200K/month** and 1,000+ bills per run, eliminating 50+ hours of monthly work for Processors
  - Delivered production updates and features to a large-scale **React** app backed by **Entity Framework Core**, and **LINQ** for real-time data management serving 250K+ members
  - Applied **Test-Driven Development** with **xUnit** and Clean Code Architecture principles to ensure maintainable APIs and optimized SQL queries across services
- Web Developer** | *CGCW* | Novi, MI January 2024 - April 2024
- Built member registration tools in **C#** and **ASP.NET MVC**, emphasizing **SOLID principles** and separation of concerns to ensure clean, extensible architecture
  - Designed a normalized SQL schema and integrated it with a Data Access Layer using **Entity Framework** and **Repository Patterns** for scalable, type-safe database operations
  - Integrated a **Vue.js** frontend with backend **RESTful APIs**, enabling real-time form validation and improving registration usability
- Software Engineer Intern** | *Suitcase* | Ann Arbor, MI May 2023 - August 2023
- Architected the full-stack solution for Suitcase, a banquet room visualization tool, enabling dynamic 3D asset management and real-time user interactions
  - Developed **Django backend APIs** to serve the Unity frontend, managing user, vendor, and product data efficiently
  - Optimized a **PostgreSQL** database and asset delivery via **AWS S3/CloudFront**, achieving 60% faster room loading times for 5000+ 3D models
- Software Engineer Intern** | *Altair Engineering* | Irvine, California May 2022 - August 2022
- Developed automated Python scripts to refactor thousands of Fortran77/90 files—eliminating deprecated functions, unused variables, and syntax errors—to modernize the codebase and improve development efficiency

## TECHNICAL SKILLS

**Languages:** C#, JavaScript, SQL, HTML/CSS, Python, Java, C++, TypeScript

**Frameworks:** .NET Core(8/9), ASP.NET, Entity Framework Core, Django, React, Vue.js, Node.js

**Tools/Platforms:** Git, SQL Server, xUnit, Moq, LINQ, AWS EC2, PostgreSQL, SQLite, Linux, Visual Studio

## RELEVANT PROJECTS

- RANKED – Offline-First Ranking Mobile App** | *React Native, TypeScript*
- Built a cross-platform mobile app for creating and managing custom rankings using **React Native**, with **Supabase** for authentication and cloud synchronization
  - Implemented an **offline-first architecture** with local **SQLite** storage as the primary data source and background sync for remote updates and conflict resolution
  - Ensured data consistency through **transaction-safe operations**, rank offset handling, and optimistic updates with automatic rollback on failure
- Multi-Threaded Network Fileserver** | *C++*
- Engineered a network file server with socket programming for efficient client-server communication with multiple clients
  - Implemented multi-threading to manage concurrent client requests with thread synchronization for high server responsiveness and effective resource allocation
  - Developed read, write, create, & delete file system functionalities with crash consistent protocols to ensure data integrity

## EDUCATION

**University of Michigan - Ann Arbor**

*B.S. in Computer Science and Cognitive Science*

April 2024

**Interests:** Sports (Basketball, Tennis, Volleyball, NBA), Music (Vocals, Guitar, Drums, Songwriting), Cooking, Baking

**Fluent Languages:** English, Mandarin, French