

# Daniel Dong

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## 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** application serving 250K+ members for bill management, share tracking, and real-time in-app messaging

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, Python, Java, TypeScript, C++, HTML/CSS, Kotlin

**Frameworks:** .NET Core, Entity Framework, Django, React, Vue.js, Node.js

**Tools/Platforms:** Git, AWS (EC2, S3, RDS, CloudFront), Azure, PostgreSQL, SQLite, Linux, Visual Studio

## RELEVANT PROJECTS

RANKED – Offline-First Ranking 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

April 2024

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

**Relevant Coursework:** Data Structures and Algorithms, Web Systems, Operating Systems, Database Management Systems, Machine Learning, Mobile App Development, Computer Vision

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

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