

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

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

Tools/Platforms: Git, AWS (EC2, S3, RDS, CloudFront), PostgreSQL, Supabase, 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