

BRANDON MAI

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TECHNICAL SKILLS

Languages: Java, HTML/CSS, Python, C, Bash, JavaScript, SQL, Elixir, C++, Haskell, Smalltalk

Frameworks: React, Next.js, Node.js, Bootstrap

Databases: Oracle, MySQL, My SQL Server, MongoDB

Developer Tools: Git, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, Oracle

Libraries: Collections, NumPy, Matplotlib, Mui UI

PROJECTS

Badminton Club Database Website | barndonmai.github.io/badmintonclub/ Apr. 2024

- Developed a mock database management system for players, coaches and admin to simplify booking process.
- Collaborated with four group members to innovate a scrum-based approach throughout three iterations of the project, refining tasks over the course of four months.
- Integrated product backlogs, sprint velocity charts, test plans and test reports to optimize project efficiency.
- Implemented account types including coaches, members, treasures and staff. Functionalities include login and sign-out, sorting accounts, managing member information, accessing coach schedules and finance.

Mai Fitness | mai-fitness.netlify.app Jan. 2024

- Created a Fitness Exercise gallery to showcase exercises utilizing React, JavaScript and Material UI.
- Utilized hooks for website logic including getting API calls from RapidAPI and filtering it based on search function.
- Developed search functionality embedded with YouTube API to recommend "Similar Exercises" in real time.
- Created complex animations using React hooks such as an infinite loading bar and dropdown buttons.

Boggle | github.com/barndonmai/boggle-elixir Jan. 2024

- Developed a Boggle word solver using Depth-First Search (DFS), designing a recursive algorithm with backtracking to explore all word combinations efficiently on a 2D board while tracking visited cells.
- Leveraged Elixir's MapSet for fast lookup of valid words and implemented prefix pruning to terminate invalid search paths early, optimizing performance for large word lists.

Songify | github.com/barndonmai/songify | *Object-Oriented Programming* Apr. 2023

- Created a text-based music app in Java for managing and downloading songs, audiobooks, and podcasts.
- Designed core functionality features such as content download, playlist creation, and playback.
- Implemented search functionalities to filter songs by title, artist, and genre.

EDUCATION

Toronto Metropolitan University (Formerly Ryerson University) Graduation Date: Apr. 2026

B.Sc in Computer Science Toronto, ON

- Awards: Entrance Scholarship (95%+)
- Relevant Courses: Data Structures, Operating Systems, Object Oriented Programming, Web Systems Development, Computer Architecture, Introduction to Software Engineering, Discrete Structures, and Database Systems.

LEADERSHIP EXPERIENCE

President Sep. 2023 – Present

TMU Chinese Student Association Toronto, ON

- Led 50+ students across six departments to ideate and execute events to engage the student community.
- Hired a team of six executives and delegated project deliverables over a one-year period, achieving 50K+ digital impressions and generating \$100K in gross revenue through events.
- Spearheaded a promotional plan to optimize a seamless scrolling user experience on digital media, ultimately boosting user engagement by 300% and achieving 30K+ views across social media platforms.

President Sep. 2023 – Sep. 2024

TMU Recreational Badminton Club Toronto, ON

- Wrote three Bash program scripts to filter and scrape email data from club database to organize 200+ contacts.
- Facilitated cross-functional communication and operations across six departments, collaborating with high profile athletes to promote the sport of Badminton within Canada.
- Managed 300+ members within the club to provide seamless communication and updates on community events.