# Brandon Wong . Jarvis Consulting

I am an aspiring software engineer who enjoys piecing blocks together: be it ideas from disciplines, people from different teams, or applications from different industries. I have a strong technical skills and an academic background in engineering, full-stack development and web design. My passion lies in solving business problems to communicate complex ideas to non-technical stakeholders. In Ensemble Technologies Inc., I collaborated with a team of six to transform a client's mobile car inspection application to reduce the client service time by 20%. In my undergraduate studies, I've taken on various leadership roles leading teams of 3+ developers to build 5+ full-stack applications that satisfies a clients' needs. I was able to adjust to different team dynamics, translate from requirements to manageable tasks and meet to tight timeframes. I graduated in April 2024 at McGill University in Software Engineering and I'm interested in full-time software developer roles. Please feel free to get in touch with me via email at brandon-wh-wong@outlook.com.

## Skills

**Proficient:** Java, Spring Boot/Gradle/Maven, Docker, Git, Agile/Scrum

**Competent:** JavaScript/TypeScript, Angular/React/Vue, NodeJS/ExpressJS, C/C#/C++, Python

**Familiar:** NVidia CUDA, Python Data/Pandas/Scikitlearn, Jenkins/Kubernetes, AWS/Azure/GCP, Java Concurrent Library

## Jarvis Projects

Project source code: https://github.com/jarviscanada/jarvis_data_eng_BrandonWong

**Linux Cluster Resource Monitoring Project** [GitHub]: This project is an automated system that keeps track of the resources utilized by a Linux Cluster. It tracks the cpu, memory and disk usage of the given machine and persists all this information within a dedicated database. It is written for system admins or developers who manage actual/virtual Linux machines.

**RDBMS and SQL** [GitHub]: This project is documentation on PostgreSQL exercises on the following topics: Basics, Join, Aggregation and String. These exercises ensure that the develop can perform queries on a relational database using practical features and formatting.

## Highlighted Projects

**Mini-C Compiler from Scratch**: This project is a Java compiler to transform a subset of the C language into machine code, achieving an 80% test pass rate. The project consists of a Lexer, Parser and Semantic Analyzer to transform a valid program to an Intermediate Representation. Furthermore, I developed a Code Generator and Register Allocator to convert the IR of a program to MIPS assembly code. Lastly, I wrapped the compiler with JUnit tests for the compiler, achieving 72% code coverage and reducing maintenance costs by 20% through early bug detection.

**Customer Relation Management Systems**: This project is a CRM system to track and manage 20+ potential prospects and existing clients with consultancy services. I designed the client-side platform to allow users to manage prospects and to customize the client acquisition workflow. Also, I collaborated with a team of four to implement the server-side infrastructure to manage data persistence and task automation defined by users.

**Gomoku MCTS AI Agent using Parallel Schemes**: This project is designed to compare the performance of the Monte Carlo Tree Search algorithm utilizing Root and Leaf parallelization schemes on the game of Gomoku. I organized build scripts to validate the algorithm's performance on Windows CUDA machines.

## Professional Experiences

**Software Developer Trainee, Jarvis Consulting (2024-present)**: Develop web application hosted on remote machines to track linux cluster information

**Co-Founder, Ensemble Technologies Inc. (2022-2024)**: Transformed and refactored a client's mobile car inspection application to view and perform on-sight inspection that extended a contract from 6 to 18 weeks. Hired, coached and led development team of three in UI/UX, full-stack development and software testing practices.

**Frontend Web Developer, Radish Cooperative (2021-2022)**: Implemented robust sales enablement tools, facilitating access to sales data across 15+ restaurants and streamlining product management processes across five ordering

platforms. I also enhanced the online-ordering platform by updating the Angular code base with RxJS and Bootstrap, resulting in a 30% improvement in system performance and reducing order processing time by 25%.

**Android Developer, McGill University [Dr. Benjamin Fung] (2020)**: Built an embedded android application that controls the TEMI robot to guide guest around the School of Information at McGill University.

**Research Assistant, McGill University [Dr. Benjamin Fung] (2019)**: Transformed clinical raw data from the MIMIC-III database into an edgelist data structure using Python data analytical libraries.

## Education

**McGill University (2022-2024)**, Bachelor of Software Engineering, Faculty of Engineering - Graduated with Internship Program

**Marianopolis College (2018-2020)**, Pure and Applied Sciences, DEC Sciences - Dean's List [2018] - Dean's List [2019]

## Miscellaneous

- Certificate: TechAccel Program Certificate issued by McGill Engine Centre [2023]
- Certificate: Certified Empowered Startupper issued by Empowered Startups [2023]
- Award: 1st Place at iPitch issued by JHKBA (Junior Hong Kong Business Association) [2023]
- Award: 1st Place at McHacks 9th issued by HackMcGill [2022]
- Violinist: Toured at the Summa Cum Laude festival in Vienna and 4 other cities as a concert master of the Montreal Suzuki String Orchestra. I also competed in soloist competitions in Victoriaville, Quebec representing my high school music program.
- Saxophonist: Played at the Montreal Jazz Festival as an alto saxophonist for 3 years consecutive.
- Gundam Models: Build plastic models from the Gundam Franchise. I prefer Gundams from the Universal Century.
- Audiophile: Enjoy a balanced audio feedback while listening to jazz. I currently use the Beyerdynamics DT990 Pro, 250 Ohms.
- Coffee Enthusiast: Fall in the rabbit hole of the Aeropress. I dabble with medium roast coffee accompanied by a hint of nuts.