

# Brandon Arai

Canada | Email: [Available upon request] | Phone: [Available upon request] | Academic Github | Personal Github

## Technical Skills

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- Languages: C#, Java, Python
- Applications: Unity, Git, IntelliJ, Pycharm
- Operating Systems: Windows, Linux

## Personal Technical Projects

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### Cyber Barrage - GitHub, Itch.io

February 2025 - Present

- Published a 2D shooter-platformer browser and downloadable game using C# in the Unity Engine to Itch.io.
- Configure Unity's Animator Controller state tree with Aesprite sprite sheet and audio source for game object's script input handling such as entity's idle and walk animation.
- Designed various interconnecting game logic features to enrich the player's gameplay interactions such as customization loot table, hero shooter's ultimate ability, distinct ammo types, enemy attack phases and one-way tiles.
- Employ Unity's User Interface and 2D Tilemap Editor to create visual gameplay elements like custom font, health bar, toggle-able ammo bars, ultimate ability progression and duration bar.
- Built a suite of reusable global scripts in Unity, attachable to any GameObject to streamline object instantiation, enforce clean coding optimization, simplify refactoring and creating engaging game mechanics.

### Customer Support Chatport Chatbot - Github

April 2025 - May 2025

- Requested JSON chat logs and automatically sent replies to the company's website via the Chaport widget using Chaport's RESTful API key and Python's schedule package for a local business.
- Ran Hugging Face's Mistral-7B-Instruct-v0.2 model on requested chat log and rank retrieval system.
- Utilized Python's Pandas, Rank-BM25 search engine, TfidfVectorizer and Flashtext for accuracy and correctness of search database results.
- Integrated them into a structured pipeline and Python file directory for optimizing bug fixing, testing and adding new modular systems.
- Increased customer engagement and worker efficiency by having the program reply to messages swiftly with accurate stock information compared to an actual customer support operator.

## Technical Project Experience

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### UnderCooked - Project Video

January 2024 - April 2024

CMPT 276 - Introduction to Software Engineering

- Developed a top-down game in Java by problem-solving team organization and related time management for completing each project's pipeline.
- Implemented structuring patterns such as Singleton and Adapters to engineer player movement, score collection and different game scenes.
- Collaborated and communicated efficiently with the team's GitHub version to control commits, merges, branches and Maven's Project Object Model file.
- Integrated user interface behavior logic with sprite assets and Unified Modeling Language diagrams to create a start, exit, and instruction button; a score counter; and a time display.
- Optimized test coverage with JUnit testing framework for bug fixing and refactoring god classes.

## Education

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### BSc Computing Science

September 2023 - Dec 2026

- Canada

### Associate of Science

September 2021 - April 2023

- Canada