Jason Cai

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Education

Simon Fraser University, Burnaby   **Burnaby, BC**
Computer Science 3.05 GPA   May 2025
Coursework: Data Structures/Algorithms, Data Science, Artificial Intelligence, Discrete Math, Computer Vision

Experience

Blackbird Interactive   **Vancouver, BC**
Student Programmer - Earthless   Sep 2022–Dec 2022
- Prototyped several new game mechanics planned by designers and prepared for early-stage testing/balancing
- Developed scalable tools on the Unity Editor with UI designed for game and sound design teams
- Updated features and fixed bugs caused by outdated implementations
- Documented usage instructions regarding new design tools for ease of use and future reference

Robokids Coquitlam   **Coquitlam, BC**
Part-time Contract Instructor   July 2023–Current
- Guiding small groups of K-8 kids totaling to 20+ kids weekly on tech subjects in STEM subjects covering mathematics, LEGO Mindstorm robotics, and programming such as Data Structures, Python, and C++
- Contributed to course planning for summer camps covering topics such as SketchUp, Micro-bit, drones, AI ethics, ChatGPT, AI-image generation, and game development

Projects

Past Your Peak   **Mountain Top Game Jam 2023**
Game Programmer   July 2023
- Designed a template projectile class system to simplify the creation of projectile prefabs
- Assisted teammates in learning the Unity game engine and development of other parts of the game (enemies, player, environment interactions)
- Supported in UX refinement to improve game entertainment and player experience

Local Network First Person Shooter Game   **Grade 10 IT Course**
Development Lead   Nov 2017–April 2018
- Solo-developed a fully functional FPS game on the Unity game engine.
- Assembled basic client-to-client network interactions to allow for multiplayer capability
- Hosted a fully operational game session allowing up to 18 clients to play the fully released game using the multiplayer server service provided by Unity

PC Parts Database Website   **SFU 354 Course**
Full-stack Developer   June 2022
- Designed a relational model and Entity relationship model with relational algebra for the database structure
- Utilized a LAMP app technology stack for the development of the website and data system
- Architected PHP requests for database data removal and stylized the website using CSS for improve user experiences

FoodMatch   **SFU Stormhacks 2021**
Front-end Web Developer   April 2021–Oct 2021
- Used a combination of JS, HTML, and CSS to develop a user-friendly interface
- Managed the Notion project planning and communications, increasing team coordination efficiency by 20%
- Re-architected using a React Ionic framework for modularity, stylistic improvement, and development efficiency

Skills

Proficient: Unity C#, C++, Python, Git/Terminal, VSCode, HTML5, CSS, JavaScript, Typescript, Angular
Familiar: PHP, Python (Pandas), Java, P5.js, C, Haskell, MySQL, SketchUp, Blender 3D
Novice: Android Studio, React, Spark, MATLAB (CVX), LaTeX, ML, Rust