

Jason Pan

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EDUCATION

University of Waterloo

Candidate for Bachelor of Computer Science

Waterloo, Ontario

Sept. 2025 – Present

- **GPA:** 3.96/4.00
- **Relevant Courses:** Designing Functional Programs (Racket), Algorithm Design and Data Abstraction (C)

SKILLS

Languages Python, C, JavaScript, HTML, CSS, Processing

Tools Flask, SQLAlchemy, PostgreSQL, Git, GitHub, Railway, VS Code, Antigravity, PyCharm, Linux

PROJECTS

Real-Time Study & Productivity Tracker

Sept. 2025 - Present

Python, Flask, SQLAlchemy, JavaScript, HTML, CSS

- Deployed a full-stack web application with multi-user authentication, session management, and bcrypt password hashing
- Managed relational data using PostgreSQL (Supabase) to store study and break sessions, homework tasks, notes, and events
- Built a responsive front-end interface with dynamic analytics using Chart.js, a monthly calendar, and group leaderboards
- Improved study accountability among friends by enabling real-time break awareness and competitive study hour tracking

Pokémon Turn-Based Battle Simulator

June 2025 - Sept. 2025

Python, Pygame, API, OOP

- Developed a turn-based battle simulator against a strategic AI opponent using Pygame featuring 6 Pokémon with unique stats
- Engineered core game logic including randomized attacks, type advantages, and health management using OOP principles
- Integrated PokéAPI to dynamically fetch sprites and create an interactive GUI with battle mechanics and responsive controls
- Implemented distinct status effects and coin flips for status recovery and turn order, taking inspiration from Pokémon TCG Pocket

Frogger Arcade Game Remake

May 2023 - June 2023

Processing

- Built an arcade game clone featuring WASD movement, floating platforms, moving cars, hazard zones, and real-time scoring
- Implemented coordinate-based collision detection and synchronized movement while crossing the river on logs and turtles
- Designed a complete UI with home, gameplay, and end screens including a life management system and timed gameplay

EXPERIENCE

Alberta Junior AI Training Center

Edmonton, Alberta

Minecraft Game Development Coding Instructor

Jul. 2025

- Delivered a comprehensive 10-day programming course using Minecraft Java Edition and a block-based coding platform
- Introduced computing concepts such as functions, parameters, loops, variables, conditional logic, and advanced algorithms
- Challenged students to think logically in 3D through hands-on coding challenges and project-based assessments

University of Waterloo Badminton Club

Waterloo, Ontario

Club Executive

Sept. 2025 – Present

- Oversaw court setup/tear down, board management, challenge systems, and real-time player grouping based on skill level
- Managed tournaments and event operations with Google Sheets along with serving approximately 80 players per session
- Ensured smooth session flow by helping members check in while coordinating with other executives and directors

Alberta Aviation Museum

Edmonton, Alberta

Flight Simulator Volunteer

Jul. 2024 – Aug. 2025

- Guided 100+ visitors on the museum's Redbird flight simulators by providing personalized instruction on different aircraft
- Instructed participants on aircraft controls such as the yoke, throttle, and rudder pedals for proper takeoff and landing
- Coordinated with other volunteers and the front desk to optimize visitor flow and simulator scheduling during peak hours

Old Scona Academic Chess Club

Edmonton, Alberta

Club Co-President

Sept. 2023 – June 2025

- Expanded club membership to 40+ students through coordination with the executive team and feedback from members
- Organized major annual events including the Interscholar Chess Olympiad with a \$200+ prize pool and charity fundraisers
- Managed budgets, venue logistics, external communication, and created advertisements to increase participation by 30%

HONORS, AWARDS, AND CERTIFICATES

- **President's Scholarship of Distinction (95%+ Admission Average)**, University of Waterloo – 2025
- **Certificate of Distinction (Top 25% Nationally)**, Canadian Computing Competition (CCC) – 2024
- **Certificate of Completion (Cybersecurity Essentials)**, Cisco Networking Academy – 2022
- **Team Champion**, University of Waterloo Badminton Club Grand Prix – 2025, 2026
- **2nd Place Provincial Finish**, Alberta Chess Challenge – 2023, 2024