Jason Hon

+1 (226) 753 0193 | jkhhon@uwaterloo.ca | 🔗 jasonhonhk | 🔘 JasonH53 | jasonhon.com

EDUCATION

University of Waterloo   Waterloo, ON

Bachelor of Computer Science, Artificial Intelligence Specialization   *Expected 2027*
- **GPA: 4.0/4.0** (CAV: 91.5%, Candidate for Dean's Honors List)
- **Courses**: Algorithms, Data Structures, Object Oriented Programming, Compilers, Operating Systems
- **Awards**: CS Intl. Upper Year Scholarship, Presidential Scholarship of Distinction (Totaled CAD $8000)

EXPERIENCE

Software Engineer Intern   Jan 2025 - Apr 2025

Huawei Canada   *Markham, ON*
- Designed an **MLIR** annotation pass for sharding metadata, improving inference performance on GPUs by **15%**
- Implemented an **ILP** Solver in **C++** that finds an optimal parallelization plan for any attention layer subgraphs, reducing inference time by **30%**
- Created optimizations to guide parallelization plan generation, achieving up to **3.5x** speedup over other solutions
- Extended support for various sharding configurations in **MLIR's mesh** dialect, improving subgraph computation time by **50%** by enabling the generation of more efficient and scalable parallelization plans

Software Developer   Sep 2024 - Present

University of Waterloo, Computer Science Club   *Waterloo, ON*
- Developed and maintained CodeyBot, a feature-rich Discord bot, leveraging **TypeScript, Docker, SQLite, Discord.js**, and **Sapphire**, successfully deploying to a server with **over 4,500 members**
- Spearheaded development of a wordle-like geography guessing game, played by over **500** users
- Collaborated with a team of 11, conducting code reviews and weekly Scrum meetings to drive innovative features

Undergraduate Teaching Assistant   Sep 2024 - Dec 2024

University of Waterloo, School of Statistics and Actuarial Science   *Waterloo, ON*
- Evaluated assignments for a probability course with **150 students**, delivering accurate and timely feedback

Software Developer   Jun 2023 - Aug 2023

Bonumcare   *Remote, Freelance*
- Engineered and deployed a **GPT-3.5** based "Conversation Buddy" chatbot designed for the elderly on **AWS EC2**, enabling seamless daily interactions by engineering scalable **RESTful APIs** on an **Express** server
- Redesigned the chatbot user interface using **React, HTML, and CSS**, resulting in a **90% satisfaction rate** from elderly users, and enhancing usability and accessibility by streamlining interactive design principles

PROJECTS

UWCompass - Course Planner 🔗 🔘   Aug 2024 - Present
- Built a **React** web application that simplifies the course and degree requirements planning, used by over **100** users
- Scraped and organized data for **5,000+** courses and programs using **BeautifulSoup**

Chess Engine 🔘   Jun 2024 - Aug 2024
- Developed a Chess engine in **C++** with **AI** opponents of varying difficulty using an advanced evaluation algorithm
- Strictly adhered to **Object-Oriented Design** principles and design patterns (MVC, Observer, Factory)

SLMod - Minecraft Mod 🔘   May 2021 - Dec 2023
- Maintained and developed a portable **Java** game modification used by over **40 daily users**
- Deployed a **Flask** user-tracking system with **MongoDB**, visualizing over **6,800 user log-ins** on a dashboard

SUMMARY

Languages: C/C++, Java, JavaScript/TypeScript, Python, SQL, HTML/CSS, Scala, Racket
Frameworks: React, NodeJS, Angular, NextJS, Flask, Express, Tailwind, LLVM/MLIR, GraphQL, Sapphire
Technologies: Git, Docker, AWS, MongoDB, MySQL, Unix/Linux, Bash, Valgrind
Extracurriculars: Hack The North Hacker, UWCSA Marketing Executive, YouTube Channel (20k+ subscribers)