William Walcher

https://www.williamwalcher.xyz

Programming Skills

• Languages: C/C++, Java, C#, Python, Erlang, Assembly Other: Git, Docker, REST-APIs, CI/CD, Agile

Work Experience

• Microsoft

Redmond, WA

Software Engineer

Starting June 2021

• Microsoft

Vancouver, BC

Software Engineer Intern

May 2020 - August 2020

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- o Member of the Windows Media Apps Team, working on applications with over 1 billion users worldwide.
- Added new functionality to the Windows Photos app, and enhanced integration with Windows file explorer.
- o Improved accessibility and usability in Microsoft Paint.

• Target

Minneapolis, MN

Software Engineer Intern

June 2019 - August 2019

- Worked on the Transfer Orders Team, managing product transfers across 1800+ stores, 25 distribution centers.
- Helped develop a next generation product transfer solution to replace ~7 legacy solutions in the supply chain.
- Migrated 9 microservices to the Target Application Platform, to streamline the development process.

• University of British Columbia

Vancouver, BC

Teaching Assistant

Sept 2018 - Sept 2020

• CPSC 121: Models of Computation • CPSC 213:

• CPSC 313:

○ CPSC 415:

Computer Systems Computer Hardware and OS Advanced Operating Systems

Projects

- χeros Kernel: Developed a kernel based on the x86 architecture as part of my advanced OS class. This involved implementing a memory management system, handling process creation, management, and preemption, dealing with context switches, system calls, sending signals, inter-process communication, and writing a keyboard driver.
- Telegram Chatbot: Created a bot using Python and PostgreSQL, hosted with an AWS EC2 instance, that allows users to access their favorite stickers (emoji-esque images). Users can tag stickers and search for those tags in any chat to get a list of matches to choose from. Issues with lookup times prompted me to learn about probabilistic data structures, and implement a bloom filter to improve lookup speed.

Academics

• University of British Columbia

Vancouver, BC

Bachelor of Science in Computer Science - GPA: 87.9%, US Scale: 4.1

Sept. 2017 - May. 2021

- \circ Awards:
 - * Outstanding International Student Award
 - * Trek Excellence Scholarship

- * Charles and Jane Banks Scholarship
- * Faculty of Science International Student Scholarship

- o Coursework:
 - st Graduate-level Operating Systems Research
 - * Computer Networking

- * Software Engineering
- * Distributed Systems/Parallel Computing

Activities

• Computer Science Student Society

Vancouver, BC

- o Vice President, Social:
 - * Developed events throughout the year for the undergraduate student body.
 - * Facilitated organization of the end-of-year gala, an event with 160+ students in attendance.
 - * Practiced effective communication, and attended weekly meetings to improve club operations.