RD YEAR COMPUTER SCIENCE · 3.82 CGPA

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## Education \_

#### **University of Toronto - St. George Campus**

Toronto, Canada

HONORS BACHELOR OF SCIENCE IN COMPUTER SCIENCE, MATHEMATICS, AND CLASSICS

Sept 2018 - May 2023 (Expected)

- 3.82 CGPA
- Relevant Courses: Operating Systems, Algorithm Design and Analysis, Data Structures, Computer Organization, Advanced Multivariable Calculus, Software Design, Systems Programming
- Currently Taking: Software Development, Web Development, Functional Programming Paradigms

# Skills

Languages: Proficient in Python and C, have experience with JavaScript and Java

Other Skills: Git, HTML, ReactJS, Concurrency, Systems Programming, MongoDB, Flask, RESTful APIs

# **Projects**

#### **Libfuse Filesystem Implementation**

Toronto, Canada

June 2020 - July 2020

- CODE AVAILABLE UPON REQUEST
- Designed and implemented a fully functioning filesystem mounted in Linux user space in C.
- · Chose a hybrid direct-pointer/extent structure based on ext4 for most efficient allocation of space.
- Designed filesystem to handle arbitrary size and number of inodes.

#### **Virtual Memory Simulator**

Toronto, Canada

CODE AVAILABLE UPON REQUEST

July 2020 - August 2020

• Implemented virtual-to-physical address translation and several page replacement algorithms in C.

#### **Multithreaded Synchronization**

Toronto, Canada

CODE AVAILABLE UPON REQUEST

July 2020 - July 2020

- Implemented multithreaded message queue between arbitrary amount of consumers and producers using C.
- Used appropriate synchronization primitives to facilitate proper data transfer and prevent deadlock.

Chat Server Toronto, Canada

CODE AVAILABLE UPON REQUEST

March 2020 - March 2020

- Implemented a command-line text server using C, sockets and TCP.
- · Implemented functionality to send messages, follow users, and handle partial reads without errors or memory leaks.

### **Probation: Android Minigame Collection**

Toronto, Canada

HTTPS://GITHUB.COM/ZENGHAOWANG/PROBATION

September 2019 - December 2019

- Collaborated in small team to create a collection of minigames for Android devices using Java and Android Studio.
- Utilized git effectively to track changes and coordinate workflows.
- · Used model-view-presenter architecture and design patterns to create maintainable and extendable code.

# **Experience**

### **Hart House Symphonic Band**

Toronto, Canada

WEBMASTER-HTTP://HHSB.SA.UTORONTO.CA

July 2020 -

- Maintaining and updating website for UofT extracurricular musical ensemble HTML, CSS, and SFTP.
- Currently migrating website to Github + Heroku for better version control, collaboration, and ease of use.

#### **Programming Instructor**

K12 BUILDING BLOCKS

Aurora, Canada

July 2019 - August 2019

- Taught students ages 7-13 the basics of Python and Scratch.
- Simplified programming concepts such as functions, variables, and loops in a friendly, intuitive, and approachable fashion.
- · Inspired several students to develop an interest in programming by creating games and practical programs.