

# Zachary Koo

(403) 991-1833

[zmkhooseng@gmail.com](mailto:zmkhooseng@gmail.com)

Website: [zacharykoo.github.io/zacharykoo](https://zacharykoo.github.io/zacharykoo)



[github.com/zacharykoo](https://github.com/zacharykoo)

[linkedin.com/in/zachary-koo](https://linkedin.com/in/zachary-koo)

## EDUCATION

**University of Calgary** - Bachelor of Science in Computer Science and Biological Science

Expected graduation on December 2022

GPA in Computer Science: 3.67

## SKILLS

### Software Development

Languages: Java, C, C++, Haskell, Python, Golang, SQL, Technologies: Git, Linux  
Javascript(Vue, Angular)

## PROJECTS

**EcommerceWebApplication** - <https://github.com/zacharykoo/EcommerceWebApp>

January 2022 - May 2022

- Created backend database using GORM, repository using SQLite and services, API handlers for an E-commerce application using **Golang**
- Frontend connection and API requests including GET, SET and POST requests using **Angular**

**DistributedSystem** - <https://github.com/zacharykoo/DistributedSystem>

February 2022 - May 2022

- Peer-to-Peer Distributed system created using B-multicast algorithm which contains own peer process and a registry process in **Java**
- Implemented system communications using paradigms, included fault tolerance and coordination with timed system paired with ACKs
- Connection is established by UDP Datagram socket and can handle a minimum of 121 users concurrently with at most 7.76 ms delay

**Self-checkout software** - <https://github.com/zacharykoo/selfcheckoutProject>

January 2022 - April 2022

- Self-Checkout System handles items in database by using PLU code or scanning Barcode paired with respective observers
- Each components of the software were tested and ensure 100% branch coverage to verify application is functionally implemented in **Java**

**NotScribbl.io, "Nightowl Studios"** - <https://github.com/nightowl-studios/arcade>

JUNE 2020 - December 2020

- Backend websocket connection and API service implemented using Gorilla, drawing tool canvas with event handlers implemented in **Golang**
- Web client, frontend communication with general web application designs in **VueJS**

## EXTRACURRICULAR ACTIVITIES:

### Competitions:

- Alberta Collegiate Programming Contest - 12th (2020)
- Calgary Collegiate Programming Contest - 6th (2021)
- Member of University of Calgary Competitive Programming Club (2020-PRESENT)

### School activities:

- Executive of Badminton Club at the University of Calgary (2017 - 2018)

### Volunteering:

- Children Hospital's Rotary Flame House (2015 - 2017)
- Foothills Medical Center's HELP program (2014 - 2017)
- Calgary Chinese Pentecostal Church's Youth Summer Camp (2011 - 2014)