# HEIDI HAN

heidihan0000@gmail.com
github.com/heidihan0000
heidihan0000.github.io

## EDUCATION

**BASc, Mechatronics Engineering • University of Waterloo**          Sept 2018 – Apr 2023

- Relevant courses: Software Design & Architecture, Algorithm Design & Analysis, Computer Networks, Cooperative & Adaptive Algorithms, Computer Structures & Real-Time Systems (3.7/4.0 GPA, Computing Option)
- Awards: Norman Esch Entrepreneurship Award, Precision Resource Most Innovative Design Award

## SKILLS

**Languages**: JavaScript, HTML/CSS, C++, Go, Python, Java, Kotlin, Swift, Objective-C
**Frameworks & Tools:** React, React Native, Vue.js, Node.js, Express.js, SQLite3, MySQL, Bootstrap

## EXPERIENCES

**Software Engineering Intern • Avast**          May – Aug 2022

- Applied Decentralized Identity Foundation (DIF) standards to TrustBloc Wallet, a web implementation of a verifiable credential holder, to increase interoperability and allow dynamic credential displays using Go
- Architected and implemented changes to Hyperledger Aries regarding credential metadata using Go and integrated changes to Wallet frontend, as well as other UI features, refactoring, and bug fixes using Vue.js

**Software Developer Intern • TextNow**          Jan – Apr 2022

- Developed calling API used in TextNow mobile applications using C++
- Conducted internal dogfooding and A/B testing using Leanplum to analyze and optimize call flows
- Collaborated with both iOS and Android teams for call-related features using Swift/Objective-C and Java/Kotlin

**Software Developer Intern • Arup**          May – Aug 2021

- Improved user experience with MassMotion, a 3D crowd simulation software, by adding features and bug fixes to components including UI, SDK, and database using C++, Qt, and SQLite3 and tested using Catch2

**Software Infrastructure Intern • Ford Motor Company**          Sept – Dec 2020

- Optimized app startup processes using C++ and SQLite3 as part of the Application Lifecycle Manager team
- Performed testing and code maintenance using Google Test and Mock test framework and static code analysis

**QA Engineering Intern • Veeva Systems**          May – Aug 2019

- Ensured the quality of Network-Integration products through methods such as integration testing, E2E testing, API testing, functional and non-functional testing

## PROJECTS

**BEXTER (Bex, the Teaching and Engaging Robot)**          Sept 2022 – Mar 2023

- Co-founded an educational robot to demonstrate alternative communication methods to non-speaking children by pointing to words on a communication board while displaying and reading a book
- Led software development including design and implementation of the mobile app, backend server, hardware communication, and database integration using React Native, Node.js, MySQL, Amazon S3, and Python

**Covid Bubble**          Sept – Nov 2021

- Co-developed and deployed a web application that allows the user to visualize their social bubble through a force directed graph using Python, React, Flask, and MongoDB