

# SU HONG KOO

3B Computer Engineering – University of Waterloo

Phone: 647-215-0899 | Email: [contacts@suhongkoo.com](mailto:contacts@suhongkoo.com) | Website: <https://www.suhongkoo.com>

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## TECHNICAL QUALIFICATIONS

<b>Languages</b>	C++, C, Python, SQL, Java, JavaScript, HTML, CSS, C#
<b>Tools/Frameworks</b>	Git, Make, CMake, Google Test, TensorFlow, OpenCL, Vulkan, React, MFC

## WORK EXPERIENCES

**GTS | Strike Technologies - C/C++ Developer – Core Trading Infrastructure** **May – Aug 2019**  
New York, NY

Tech Stack: C++, Google Test, MFC, Make

- Designed and developed a real-time risk management plugin responsible for processing over 100 million orders/day, amounting to 100s of millions of shares and 100s of billions of dollars traded
- Ensured extensive text coverage through unit testing with Google Test, and parallel testing
- Implemented user interface for the plugin with Microsoft Foundation Class (MFC) to be used in existing monitoring application

**NXP Semiconductors - Deep Learning and Embedded Vision Software Developer** **Sept – Dec 2018**  
Ottawa, ON

Tech Stack: C++, Python, TensorFlow, Google Test

- Contributed to development and testing of deep learning enablement library for embedded processor
- Modified and trained LiDAR based 3D object detection network for embedded platform with TensorFlow
- Optimized image pre-processing functions, leading to performance improvements of up to 79%

**Primate Labs - GPGPU Software Developer** **Jan – Apr 2018**  
Toronto, ON

Tech Stack: C++, OpenCL, Vulkan, CUDA, MFC, CMake

- Participated in development of Geekbench, a cross-platform benchmarking software
- Optimized GEMM (General Matrix Multiplication) kernels for OpenCL and CUDA, improving performance by up to 645%
- Ported over existing Vulkan workloads to Android and ensured compatibility across all devices

**Lixar - Junior Developer** **May – Aug 2017**  
Ottawa, ON

Tech Stack: JavaScript, React.js, Redux, HTML/CSS, C#

## EDUCATION

**Candidate for BAsC of Computer Engineering** **2016 – Present**  
University of Waterloo, Waterloo, ON  
GPA: 87.45%

## AWARDS, CERTIFICATIONS AND SCHOLARSHIPS

**Term Dean's Honours List** **1A, 2B**

- Awarded to recognize outstanding academic achievement each term