

# Daekun Kim, Curriculum Vitae

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## Education

### Candidate for Bachelor of Software Engineering, University of Waterloo

Software Engineering (Honours), 2019-2024 (Expected)

## Research Experience

### Undergraduate Research Fellow, University of Waterloo, Sep. 2020 - Present

- Human-Computer Interaction, AR/VR research under Professor Daniel Vogel.
- Conducting research on reliving memories through in-situ volumetric videos in AR
- Published a **1<sup>st</sup> author** paper on a novel mouse interaction technique for spatial augmented reality (SAR) in **CHI 2022** (Late-breaking Work, full paper submitted to UIST 2022) **[E1]**.
- Published a study on physical-virtual conformity in **CHI 2021 workshop** as a co-author **[E2]**.
- Presented as a speaker at WebAR Workshop for Toronto SIGGRAPH Chapter.

### Research Intern, Los Angeles, May. 2022 - Aug. 2022

#### Snap Research

Human-computer interaction, AR, IoT research

## Professional Experience

### Software Engineering Intern, San Francisco, Jan. 2021 - May. 2021

#### Promethium

Architecting serverless ELT pipeline: 10X reduction in operating cost

### Co-founder and Chief Product Officer, Waterloo, Oct. 2020 - May. 2021

#### Scena 360

Web-based 3D gathering space | <https://scena360.com>

### AR/VR Software Engineering Intern, New York City, Apr. 2020 - Aug. 2020

#### Spatial

Virtual reality interaction design with hand tracking

### Junior Developer, Vancouver, Jul. 2018 - Aug. 2018

#### Virtro Entertainment


Game development with virtual reality, Node.js + MySQL backend engineering

# Scholarships and Awards

## **Snap Creative Challenge Award** , 2022

Received \$13,000 for funding researching on the future of moments in AR

## **Jessie W.H. Zou Memorial Award for Excellence in Undergraduate Research**, 2022

\$1,000 competitive award to support research activities at undergraduate level () news article)

## **Undergraduate Research Fellowship**, 2021

\$7,500 competitive award to fund full-time research

## **NSERC Undergraduate Student Research Award**, 2021

\$6,000 competitive award to fund full-time research

## **President's Research Award**, 2020

2 × \$1,500 award for undergraduate students pursuing research

## **Colonel Hugh Heasley Engineering Scholarship**, 2019

\$10,000 over 4 years based on academic achievement and leadership impact.

## **Presidential Scholarship of Distinction**, 2019

\$2,000 scholarship for incoming students with >95% entrance average.

## **Term Dean's Honours List (3x)**, 2019-2021

Top 10% in term average among Software Engineering students for 1A, 1B, and 2A terms.

## **BC Achievement Scholarship**, 2019

\$1,250 scholarship for exceptional graduating secondary school students

## **Hack the North Winner**, 2018

Winning team out of **1000 participants** with Wizard Chess **[P2]** project

# Publications

## **Workshops and Extended Abstracts**

- E1 **Daekun Kim** and Daniel Vogel. 2022. Everywhere Cursor: Extending Desktop Mouse Interaction into Spatial Augmented Reality. In Extended Abstracts of the 2022 CHI Conference on Human Factors in Computing Systems - CHI '22 (pp. 1-6). New York, New York, USA: ACM Press
- E2 Johann Wentzel, **Daekun Kim**, and Jeremy Hartmann. 2021. Same Space, Different Place: Designing for Differing Physical Spaces in Social Virtual Reality. In the CHI 2021 workshop "Social VR: A New Medium for Communication and Collaboration".

## Press

**CTV News**, 'Blurring the line between the virtual and the physical word': Waterloo researchers helping develop the metaverse, *Apr. 2022*

**CBC News**, These University of Waterloo professors are helping build the metaverse, *Apr. 2022*

**University of Waterloo**, Daekun Kim receives 2022 Jessie W.H. Zou Memorial Award, *May. 2022*

## Extracurricular Activities

**Tenor Vocalist**, In Full Colour acapella, *Sep. 2021 - Present*

**Baritone 1 Vocalist**, The Water Boys acapella, *Sep. 2020 - Apr. 2021*  
Chosen as Fall '20 soloist for "Little League" by Conan Gray.

**Director of Technology**, UW VR Club, *Sep. 2020 - Dec. 2020*  
Industry update research, WebAR workshops

## Selected Projects

- P4 *HoloKinect*: Holographic AR conference platform using HoloLens 2 and Azure Kinect  
[🔗 https://youtu.be/7q7NjP-q10g](https://youtu.be/7q7NjP-q10g)
- P3 *Rewinder.me*: Anchored memories made present in AR  
[🔗 https://youtu.be/XoNltK\\_28DM](https://youtu.be/XoNltK_28DM)
- P2 *Wizard Chess*: Chess, VR, speech recognition (won Hack the North 2018)  
[🔗 http://daekunkim.com/?project=10](http://daekunkim.com/?project=10)
- P1 *Reactor Engine*: C++-based OpenGL game engine for PC & MacOS  
[🔗 http://daekunkim.com/?project=2](http://daekunkim.com/?project=2)

## Portfolio

**research and projects portfolio available**  
daekunkim.com