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 **1st 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
P3 *Rewinder.me*: Anchored memories made present in AR
🔗 https://youtu.be/XoNltK_28DM
P2 *Wizard Chess*: Chess, VR, speech recognition (won Hack the North 2018)
🔗 http://daekunkim.com/?project=10
P1 *Reactor Engine*: C++-based OpenGL game engine for PC & MacOS
🔗 http://daekunkim.com/?project=2

Portfolio

research and projects portfolio available
daekunkim.com