

# Daekun Kim

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## Skills

**Back-end** Go, PostgreSQL, Redis, Node.js, Express, Python, Java  
**Front-end** React, TypeScript, JavaScript ES6, HTML5, SASS  
**DevOps** AWS, GCP, CloudFormation, Docker, Kubernetes  
**3D Graphics** Unity, C#, C++, Metal, OpenGL, DirectX, HLSL, AFrame, Three.js, AR.js

## Education

**University of Waterloo** Candidate for Bachelor of Software Engineering, Honours (Co-op) Waterloo, ON | 2019 - 2024 (Expected)

- Cumulative Average: 94.1% (3.99 GPA)
- Undergraduate Research Fellowship (\$13,500): **6% acceptance rate**
- Colonel Hugh Heasley Engineering Scholarship (\$10,000)
- 2 × President's Research Award (\$3,000)

## Work Experience

**UW Human-Computer Interaction Lab** 🦋 Undergrad Research Fellow Waterloo, ON | Sep. 2020 - Present

- Published **two 1<sup>st</sup> author** papers at **CHI 2023 (28% acceptance rate)** and **CHI 2022 (LBW, 36% acceptance rate)** conference.
- **Secured \$13K funding** for a project on reliving memories using AR (part of \$100K Snap Creative Challenge 🦋).
- Built real-time ELT data analysis pipeline for **250M+ data points** of A/B testing results using Python, S3, PostgreSQL and Pandas.
- Architected a VR experiment flow using Unity, C#, and Steam VR to conduct **UI A/B testing** with **20+ subjects**.

**Snap Research (Snap Inc.)** 🦋 Research Intern Los Angeles, CA | May. 2022 - Aug. 2022

- Filed **8 patent applications** for building immersive storytelling experiences for children using AR and IoT.
- Interviewed **20+ users** as part of human-computer interaction research as a **co-author** of **top-tier conference papers**.
- Developed immersive experience prototypes using JavaScript and Lens Studio to explore the future of physical computing.

**Scena 360 Co.** 🦋 Co-founder & Chief Product Officer Waterloo, ON | Oct. 2020 - May. 2021

- Delivered **125x attendee capacity expansion** with **no cost increase** by architecting a positional WebRTC renegotiation system.
- Conducted **100+ user interviews** and A/B testing to acquire **2K+ total users** and **100 weekly active users**.
- Optimized to **< 70ms latency** in building a 3D peer-to-peer multi-user experience using TypeScript, React, WebRTC and AFrame.

**Promethium** 🦋 Software Engineering Intern Menlo Park, CA | Jan. 2021 - May 2021

- **Secured \$150K+ revenue** by architecting a serverless ELT pipeline, eliminating unused infrastructure cost.
- Ensured **99.999% availability** by contributing to the cloud infrastructure provisioning using AWS CloudFormation.
- Saved **\$20K+ in operating cost** of the backend infrastructure by delivering a data analytics dashboard to trial customers.

**Spatial** 🦋 AR/VR Software Engineering Intern New York, NY | Apr. 2020 - Aug. 2020

- Delivered articulated hand tracking to Spatial's input system for over **10K+ Oculus Quest users**.
- Constructed a bridge between Unity app and Oculus input system to reach a new market of **2M+ Oculus Quest users**.
- Designed new teleportation mechanics for hand tracking to provide intuitive experience to the users.
- Implemented interactive web browser in AR/VR using C# and HLSL shader to allow live web browsing in collaborative sessions.

## Extracurricular Activity

**UW VR** Director of Technology Waterloo, ON | Sep. 2020 - Dec. 2020

- Coordinated partnership deals with **10+ organizations** to sponsor events.
- Organized a WebAR workshop for **20+ students** using **AFrame**, **HTML5**, and **JavaScript ES6**.
- Researched latest VR/AR industry updates and reflected them in club events.