

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 a **1st author** late-breaking work paper to **CHI 2022** conference with **36% acceptance rate**.
- 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**.

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.

Virtro 🧑🏻 Junior Developer Vancouver, BC | Jul. 2018 - Aug. 2018

- Optimized a VR game to achieve **130%+ increase** in performance (30 FPS → 70+ FPS) using **Unity's** light baking process.
- Built a scalable backend for Slack-integrated chatbot using **Node.js, Express, MySQL, AWS EC2** and **REST API** design.
- Ported The Station™ (Sci-Fi FPS Indie Game) from PC to **PSVR, Oculus Rift** and **HTC Vive** using **Unity** and **C#**.

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.