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 Computer Science, Honours   *Waterloo, ON | Sep. 2019 - Apr. 2024 (Expected)*

- Cumulative Average: 94.1% (4.00 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

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

- Won **Honourable Mention** award (**top 5% submission**) for a **1st author** paper at CHI 2023 (**28% acceptance rate**) 🔗.
- **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+ A/B testing data points** using Python, S3, PostgreSQL and Pandas.
- Conducted **UI A/B testing** for VR with **20+ subjects** by developing a remote study software using Unity, C#, and Steam VR.

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** for UI/UX need-finding and user testing; co-authored a submission to CHI 2024.
- Prototyped immersive storytelling experiences combining AR and IoT devices using JavaScript and Lens Studio.

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

- Delivered **125x attendee capacity increase** with **no extra cost** 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 platform using TypeScript, React, and Three.js.

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 natural hand interaction designs 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**.
- Implemented interactive web browser in AR/VR collaborative sessions using C# and HLSL shader.

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.