# Sung Sil Kim

github/realnumber
linkedin/in/realnumber

sungsil.kim.0512@gmail.com
+82-10-6704-1016
sungkim.vercel.app

## EDUCATION

**M.S. in Graduate School of Culture Technology**          Daejeon, South Korea | Aug 2015 - Jun 2019
KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY
Social Computing Lab (Advisor: Prof. Dongman Lee)

**B.S. in Computer Science**          Daejeon, South Korea | Feb 2009 – Jun 2015
KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY

## WORK EXPERIENCE

**Spotify** | SENIOR ENGINEER          Stockholm, Sweden | Mar 2022 - Present
- Integrated Spotify features across major **smart TV platforms** (Samsung Tizen, LG WebOS) and gaming consoles (Sony PlayStation, Microsoft Xbox)
- Introduced a **video ads solution** on Roku and Android TV that programmatically splits inventory, driving revenue growth for Spotify and opening monetization opportunities for the partners

**WAVE** | CTO          Seoul, South Korea | Apr 2017 - Jan 2022
- Designed and implemented a P2P-SFU interchangeable **WebRTC** backend with custom matching, load balancing, and auto-scaling features using **C++** and **TypeScript**. Led the development of containerized Kubernetes clusters for RESTful API backend and setup a horizontally scalable event-sourcing websocket backend for two million DAU
- Integrated CI/CD pipelines for **React Native** apps and Kubernetes clusters using AWS CodePipeline and CircleCI. Developed mobile-optimized WebRTC modules, set up logging and data processing pipelines for visualization, and created monitoring dashboards using Grafana and React.js

**UVR Lab** | RESEARCH ASSISTANT          Daejeon, South Korea | May 2014 - Jun 2015
- Participated in Human Centric VR distributive research at Samsung Digital Media & Communications: *user-independent face landmark detection and tracking algorithm for spatial AR interaction using feature enhancements based on RGB and depth images*

**ETRI** | INTERN          Daejeon, South Korea | Jul 2011 - Aug 2011
- Contributed to **GENI** federation testbed by interconnecting global Linux-based infrastructures to South Korea through a Layer 2 network topology

## PROJECTS

**Blend: Interactive video chat app** ↗          MOBILE APP
Client and server development of 1:1 WebRTC, collage layouts, filters and effects in **Java**, **Swift** and **Python**

**ToGather: Campus-based anonymous community app** ↗          MOBILE APP
Client and server development of anonymous group chats, feeds and notifications app in **Java**, **Obj-C** and **Python**

## PUBLICATIONS & TALKS

**AWS Summit Seoul '21** ↗          CONFERENCE
Invited talk on *How to build an interactive video chat platform in scale with limited resources and small-sized team*

**Augmented Human '16** ↗          CONFERENCE
NUI-based Photo-realistic AR Authoring System for Interior Design

**KIISE '15 (Best Paper Award)** ↗          JOURNAL
Integrating Facial Expression Detection and Mobile Lockscreen for Quantified Self

## SKILLS

**Languages:** TypeScript/JavaScript, C/C++, Python, Java, Swift, Obj-C, Shellscript, Lisp, etc
**DevOps:** CodePipeline, Kuberentes, Docker/DockerHub, CircleCI, Fastlane, CodePush
**Monitoring & Testing:** CloudWatch, Elastic, Logstash, Kibana, Grafana, Prometheus, Jest, Locust, Siege
**AWS:** API Gateway, Lambda, EKS, MSK, SNS, WAF, Wavelength, RDS, ElastiCache, S3, Elastic Beanstalk, EC2
**GCP:** BigQuery, Compute Engine, DataFlow, Composer, Logging, PubSub, Cloud Functions