

Seoyoung Hwang

SW Engineer
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EDUCATION

Mar. 2012 ~ Feb. 2016	Korea University School of Media and Communication <i>B.S. in Media and Communication</i> GPA: 4.11 / 4.5	Seoul, Korea
Jan. 2013 ~ Jun. 2013	Murray State University Journalism and Mass Communications <i>Exchange student</i>	Kentucky, United States

CAREER

- Staff Engineer at Development Team, Visual Display Department, Samsung Electronics Co., Ltd, Korea (Jul. 2016 ~ Present) / SW Engineer
- Exchange Engineer at Samsung R&D Institute Poland, Poland (May. 2023 ~ Jun. 2023) / Participated in a secondment to the Broadcast Development Team at SRPOL

PROJECTS

Tizen responsive UIFW, Samsung Electronics Co., Ltd, Korea(2023 ~ Present)

- Developed a responsive UI framework for Tizen OS. Designed a responsive UIFW architecture capable of supporting various form factors, resolutions, and aspect ratios at runtime, and developed standard UI components accordingly.

SmartThings 3D Mapview, Samsung Electronics Co., Ltd, Korea (2022~2023)

- Developed a 3D map view for the SmartThings app. Created features to display house floor plans in both 2D and 3D, and switch between 2D icons and 3D models for home devices. Responsible for developing APIs for use in the service app, including motion effects for 3D models, camera transitions, and lighting settings.

SignLanguage Avatar, Samsung Electronics Co., Ltd, Korea(2021~2022)

- Developed the SignLanguage Avatar, an accessibility feature for the hearing impaired. This feature uses Samsung's AR Emoji avatars to explain Samsung TV functions in sign language. Participated in capturing motions through motion capture technology, aligning these motions with 3D models, and developing a 3D rendering engine.

Tizen Graphics System, Samsung Electronics Co., Ltd, Korea(2017~2020)

- Developed the graphics system for the Tizen platform. Contributed to optimizing rendering performance based on GPU characteristics and reducing GPU memory usage. Participated in designing optimization strategies for graphic quality tailored to the characteristics of TV products.

Programming Education Volunteer for Nomadic Children in Kazakhstan(2019)

- Oversaw the planning of a curriculum for digital education aimed at children of nomadic families. Developed teaching materials and designed a level-based curriculum that included fundamental theoretical learning for computational thinking and block coding using Scratch. In Kazakhstan, taught a course on game creation using Scratch.

AWARDS AND HONORS

- 2023 SEC Culture Awards , Samsung Electronics Co., Ltd, Korea (Nov. 2023)
- Semester High Honors, Korea University, Korea (Dec. 2012)
- Semester High Honors, Korea University, Korea (Jun. 2013)
- Semester High Honors, Korea University, Korea (Dec. 2013)
- Semester High Honors, Korea University, Korea (Dec. 2014)
- Semester High Honors, Korea University, Korea (Jun. 2015)
- 1:1 LANGUAGE EXCHANGE PROGRAM SCHOLARSHIPS, Korea University, Korea (Sep. 2013)

PATENTS

1. Hyukjoong Kwon, **Seoyoung Hwang**, Hyunsoo Lee, "A display apparatus and a method for operating the display apparatus", KR-Registration No. 10-2606288-0000

RESEARCH INTERESTS

- Visual computing
- Computer graphics
- Rendering (computer graphics)

SKILLS AND TECHNIQUES

- C/C++, C#, Python, OpenGL, OpenGL Shading Language
- Unity, Adobe Photoshop/Premiere, Blend, Maya3D, Microsoft Office/Visual Studio