

# Sungwook, Kim

Address : Seocho-gu, Seoul, Korea

E-mail : bluebear9508@naver.com    GitHub : github.com/WooKeykim95

Linkedin : linkedin.com/in/sungwook-kim-b26aba228/

## Personalities

- Thinking about 'WHY?'
- Interested in Solving Problems and Making Things Efficient.
- Excited to Imaginating and Visualizing something.

## Education

Mar.2019 ~ Aug. 2021 (30 monthes)	<b>Hanyang University</b> Undergraduate Course in Civil and Environmental Engineering <ul style="list-style-type: none"><li>- GPA : 4.11/4.5 with 131 credits acquired.</li><li>- Completed Major Classes such as Construction Management, CAD for Construction, Building Information Modeling, Structural Analysis and so on.</li><li>- Completed Subjects such as Creative Programming for Engineers, Science Technologies for Sustainable Development, Basic Chinese and so on.</li></ul>	Seoul, Korea
Mar.2014 ~ Feb. 2016 (24 monthes)	<b>Yonsei Univerity (Wonju Campus)</b> Undergraduate Course in Physics <ul style="list-style-type: none"><li>- GPA : 3.50/4.3 with 75 credits acquired.</li><li>- Completed Major Classes such as Basic Electromagnetics, Modern Physics, Statistics, Calculus and so on.</li><li>- Completed Subjects such as Leadership Development, Social Science and Social Welfare and so on.</li><li>- Completed 4th Semester on Feb. 2016 and Withdrawn on Sep. 2018</li></ul>	Wonju, Gangwon-do, Korea

## Experiences

Jul. 2023 - Jun. 2024	<b>SSAFY (Samsung Software Academy For Youth)</b> <u>Student</u> <ul style="list-style-type: none"><li>- 10th Generation Trainee of Embedded Track.</li><li>- Studied about Web Development such as HTML/CSS/JS, Vue.js, MySQL, Node.js, AWS.</li><li>- Studied about Embedded Development such as C/C++, Linux Programming, Shell, and Raspberry pi.</li><li>- Studied about Algorithm such as DFS/BFS, Dijkstra, Union-Find, MST, Dynamic Programming and so on.</li><li>- Developed Projects with React.js, Next.js, Unity Engine</li><li>- Studied about SCSS, Tailwind CSS, TypeScript</li></ul>	Seoul, Korea
May. 2022 ~ Jun. 2022	<b>42 SEOUL (La Piscine, Pre-Course)</b> <u>Pisciner</u> (A Trainee in Pre-Course) <ul style="list-style-type: none"><li>- 2nd Piscine of 7th Generation.</li><li>- Studied about Basic of C, Shell, MacOS and Computer Science.</li><li>- Co-worked and solved problems with other pisciners.</li></ul>	Seoul, Korea
Oct. 2021 ~ Nov. 2021	<b>Platom Inc.</b> <u>Part Time Job Assistant</u> <p>Has participated in activities below.</p> <p><b>Developing Project of A KMO Educational Application named MO.</b></p> <ul style="list-style-type: none"><li>- Writing a Flow Chart and Functional Specification.</li><li>- Coworking with developers and web designers.</li><li>- Making a Slogan for MO.</li><li>- Planning functions and image-maps in website and application.</li></ul>	Seoul, Korea
Mar. 2020 ~ Sep. 2021	<b>Intelligent Construction Technology Lab of Hanyang University (ICTLAB)</b> <u>Researching Assistant</u> <p>Has participated in activities below.</p> <p><b>1. Researching project of Development of Smart Construction Technology hosted by ICT Center of Korea Expressway Corporation.</b></p> <ul style="list-style-type: none"><li>- Development of S-cop (Control Platform for Construction Equipments based on BIM-GIS) and C-Map (Big-Data Navigation for Construction equipments).<ul style="list-style-type: none"><li>• Construction equipment productivity analysis method using GPS Sensor.</li><li>• Distinguishing Behaviors of Construction Equipments by Time-Position data from GPS.</li><li>• Calculating filling and Cutting of Earth-volume in 3d Voxels.</li><li>• Making a Path Planning Logic with XYZ position data of 3d Voxels.</li></ul></li><li>- Application Safety Management System with UWB Positioning System and Sensors to S-cop with Kyungwoo Systec.</li><li>- Connecting with S-cop and Cloud E-BIM (A BIM Modeling Cloud Service) with DMCM.<ul style="list-style-type: none"><li>• Lightening and Simplifying of BIM data for Cloud Service.</li></ul></li></ul> <p><b>2. Providing BIM Construction Services for E&amp;C Companies.</b></p> <ul style="list-style-type: none"><li>- HDC, Incheon Yonghyun-Hakik re-development block (CITY-O-CIEL)<ul style="list-style-type: none"><li>• 3D BIM earthwork modeling of roads and blocks by using Autodesk Civil 3d.</li><li>• Installing GCPs and Aerial Surveying by using surveying drone and lazer scanner.</li><li>• Production of Orthomosaic, Digital survey report and Pointclouds by using Pix4D and CloudCompare.</li><li>• Providing Aerial Photograph and Videos of Construction Site taken by surveying drone.</li></ul></li><li>- Deukyoung E&amp;C, International New City at Godeok, Pyeongtaek city.<ul style="list-style-type: none"><li>• Providing Maching Guidance 3d Models (MG) of roads for Construction Equipments such as excavators by using Autodesk Civil 3d.</li><li>• Installation of Positioning System by GPS Sensors for Machine Guidance.</li></ul></li><li>- Taeyoung E&amp;C, Echo Delta City (EDC) in Busan.<ul style="list-style-type: none"><li>• Providing 3D BIM model of Bridge by using Autodesk Civil 3d and Autodesk Revit.</li></ul></li><li>- HOBAN E&amp;C - Reconstruction of Gaebong Residential Area 5<ul style="list-style-type: none"><li>• Installing GCPs and Aerial Surveying by using surveying drone.</li><li>• Production of Orthomosaic and Pointclouds by using Pix4D and CloudCompare.</li></ul></li></ul>	Seoul, Korea

## Projects

### Hanyang University

- Analyzing Time and Position Data from GPS of Construction Equipments and Drawing a Graph of Probability Density Function about Behaviors of Equipments in Python and Excel.
- Designing Logic of Making route for Construction Equipments by GPS data and 3d Voxels.

### WinAPI

- Making Crazy Arcade Game with C++/WinAPI
- Portfolio Video Link : [https://youtu.be/EJj\\_PRnWfNE](https://youtu.be/EJj_PRnWfNE)

### SSAFY

#### Developing Auto-Follow-Driving-System with using Linux, Python, AWS IoT System, RC Car, Raspberrypi. (Group Project with 4 people.)

- MY Part : Developing Driving Control Part with using Python.
- PPT Presentation Link : [https://github.com/WookeyKim95/RCCar\\_Following\\_Driving/blob/main/Embedded\\_RCCar\\_Project.pdf](https://github.com/WookeyKim95/RCCar_Following_Driving/blob/main/Embedded_RCCar_Project.pdf)

#### Simulating Racing Game. (SSAFY RACE, Group Project with 3 people.)

- MY Part : Developing Driving Control and Avoiding Algorithm with using Python.
- Result : 1st Award on Speed Map and 2nd Award on SSAFY Map.

#### Developing Web Platform for Artists using Next.js. (Bon Voyage, Group Project with 6 people.)

- MY Part : Frontend Developer, Developing Login Session and so on.
- Github Repository Link : <https://github.com/WookeyKim95/BonVoyage>

#### Developing Cooking RPG and Tycoon Game using Unity Engine. (Michelin de Hanyang, Group Project with 6 people.)

- MY Part : Team Leader, Developing Game UI, Making UCC, Story, and Assets.
- Github Repository Link : <https://github.com/WookeyKim95/Michelin-de-Hanyang>

#### Developing Web Collabo-work Tool using React.js. (H-Up, Group Project with 6 people.)

- MY Part : Frontend Developer, Developing Real-time Co-editor.
- Project Notion Link : <https://tropical-manicure-529.notion.site/ReadMe-6a17a851a3444c3988d1ebf3e441ld54>

## Club Activities

Sep. 2019 ~ Aug. 2021	<b>IMS, Central Swimming Club of Hanyang University</b> <ul style="list-style-type: none"><li>A Member</li></ul>
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## Awards and Certifications

Aug. 2021	<b>Hanyang Award for Graduated with Summa cum laude</b> <ul style="list-style-type: none"><li>Award for Students who graduated with GPA above 4.00</li><li>Graduation Ranking in department : 2</li></ul>
Apr. 2024	<b>Award of Samsung SW Academy For Youth</b> <ul style="list-style-type: none"><li>Metaverse Game Track</li><li>Specialization Project Second Prize (Michelin de Hanyang)</li></ul>
Jun. 2024	<b>Award by Vice Chairman of Samsung Electronics Co.</b> <ul style="list-style-type: none"><li>Achievement Award for Representative of SSAFY Seoul Campus</li><li>Autonomous activities such as Communication with Operation Office of SSAFY, Elevator Campaign, and so on.</li></ul>

## Lectures Completed

Jan. 2022	<b>Basic Web developing Course at FastCampus (K-Digital Credit)</b> <ul style="list-style-type: none"><li>Studied about HTML/CSS/JavaScript</li></ul>
Sep. 2020	<b>Engineering Development Research Center (EDRC) of Seoul National University</b> <ul style="list-style-type: none"><li>Digital Transformation for Leaders</li></ul>

## Language and Other skills

<ul style="list-style-type: none"><li>Languages</li></ul>	Native in Korean, Fluent in English
<ul style="list-style-type: none"><li>Programming Languages</li></ul>	Python (Pandas, Matplotlib), C/C++ (WinAPI, Linux, Unreal Engine), JavaScript(Node.js, Vue.js, React.js, Next.js), C#(Unity Engine)
<ul style="list-style-type: none"><li>Computer Programs</li></ul>	MS-Office(Word, Excel, Powerpoint), AutoCAD, Civil 3D, Pix4D, CloudCompare, Revit, Visual Studio, VSCode, Anaconda, Ubuntu, Vim
<ul style="list-style-type: none"><li>Military Service</li></ul>	ROKAF (Republic Of Korea Air Force): Apr. 2016 – Apr. 2018
<ul style="list-style-type: none"><li>Interests</li></ul>	3D Modeling, Programming, Algorithm
<ul style="list-style-type: none"><li>Hobbies</li></ul>	Painting with a Tablet, Swimming