SEONKWON KIM

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Application for admission

Bachelor of Science in Engineering (Computer Science / Electronics Engineering)

Master of Science (Cyber Security: Software Security)

TECHNICAL SKILLS

Programming Languages: Intermediate: C, Java, C++, Python, Dart, Go

Computer Skills: <u>Intermediate:</u> Microsoft office, Arduino, FPGA, Web framework

Spring, Java EE8, Flutter, Android, Web framework Django

PROJECT EXPERIENCE

- Product Design Project: A bus application using voice recognition technology for blind people (Handong Global University, July 2017 Sept. 2017)
 - Part of a 3-member team with a professor advisor, to develop a product to address the needs of Pohang city residents who are blind.
 - O Utilized Android by Java and researched GPI technology and Open API as a programmer.
- Business Design Project for an IT Start-up in China

(University of International Business and Economics; Beijing, China, July 2017 – Aug. 2017)

- o Team Lead for a 5-member team who developed a business project for an IT start-up business in China.
- Won 1st Place in the contest hosted by Cheil Pengtai Corporation.
- o Utilized Oven, an online prototyping tool.
- Arduino Design Project: A device to show on a screen display about seats in a library (Handong Global University, Aug. 2017 – Dec. 2017)
 - O Used Arduino by Sketch with PIR sensors and servomotors to detect whether people sit in a library chair or not.
- FPGA Design Project: A shooting game with I/O devices

(Handong Global University, Aug. 2018 – Dec. 2018)

- Used Nexys DDR 4 board by Verilog with a computer monitor, a speaker and a PS2 Keyboard to play the game.
- Industry and Academy Capstone Design Project: A enterprise web solution

(Handong Global University, Feb. 2019 – Dec. 2019)

- Team Lead for a 2-member team with a professor advisor and a company president, to develop a web-based international track and field tournament system.
- O Utilized Java EE 8 and responded to multi-view and internationalization dynamically.
- Industry and Academy Research Cooperation Project: A dynamic web solution based on GUI (Handong Global University, Feb. 2019 Dec. 2019)
 - o Team Lead for a 2-member team with a professor advisor and a company president, to develop a dynamic web solution system based on GUI.
- A Grocery Purchasing System Using RFID Technology for Blind People

(Handong Global University, Jan. 2020 – Jun. 2020)

- o Team Lead for a 3-member team with a professor advisor, to research human-computer interaction
- o Utilized Flutter, RFID technology, and UI/UX for developing a mobile application.

• KU-Smart Mask Project

(Graduate School of Korea University, Mar. 2021 – Aug. 2021)

- o Team Lead for a 3-member team in the development of healthcare masks designed to measure the content of bad breath.
- o Won 4th Place in the contest hosted by Korea University Tech Fair for 2022

• Development of Technology for the Security and Ultra-high-speed Integrity of the Nextgeneration Internal Network of Autonomous Vehicles

(Graduate School of Korea University, Mar. 2021 – Dec. 2022)

o researched AI-based autonomous vehicles internal network security threat prediction and analysis technology.

• Development of Security Service Technology Using Side-channel Information

(Graduate School of Korea University, Mar. 2021 – Jan. 2023)

o designed of a side-channel information measurement environment collected by PC systems.

• Development of Source Code Obfuscation and Decryption Technology

(Graduate School of Korea University, Aug. 2021 – Feb. 2023)

o developed a novel source code obfuscation technique.

WORK EXPERIENCE

Application Developer, Peoplespace Global Internship

(Irvine, CA, Dec. 2017 – Feb. 2018)

• Worked 45 hours per week, building a standalone web app to analyze eye-tracking data by OpenCV and Image processing.

• Web Developer, Doreiku Co. Internship

(Osaka, Japan, Dec. 2018 – Jan. 2019)

o Worked 45 hours per week, developing an enterprise web solution with Spring web framework.

• Researcher, KAIST SE LAB Internship

(Daejeon, Korea, Jun. 2019 – Aug. 2019)

• Worked 45 hours per week, researching System of Systems goal modeling and developing the simulation program for interactive functions.

• Application Developer, Physiocue, Inc.

(San Jose, CA, Dec. 2019 – Feb. 2020)

 Worked 45 hours per week, developing a mobile application to check users' migraine information and suggest health advice for users.

Researcher, KAIST CPS LAB Internship

(Daejeon, Korea, July. 2020 – Sept. 2020)

 Worked 45 hours per week, researching web system security and authentication for industrial robots.

• Researcher, DUDU IT, Inc.

(Seoul, Korea, Dec. 2020 – Feb. 2021)

• Worked 45 hours per week, researching cyber security contents related to CTF and Smart Home IoT Security Living Lab with Korea Internet & Security Agency (KISA).

• Teaching Assistant, Korea University Institute of Data Science

(Seoul, Korea, Sep. 2021 – Feb. 2023)

- Worked 65 hours per month, assisting professors and supporting the enhancement of the learning experience for graduate school students.
- Participated in courses such as Principles and Applications of Deep Learning, Data Science and Artificial Intelligence Programming, and Principles and Applications of Machine Learning.

• Resident Assistant, Korea University Anam Dormitory

(Seoul, Korea, Apr. 2021 – Feb. 2022)

 Worked 45 hours, fostering an inclusive living environment, and helping enforce residence hall policies.

• Camp Instructor, Korea University Center for Gifted Education

(Seoul, Korea, Jan. 2023 – Feb. 2023)

• Worked 48 hours, teaching basic software programming and artificial intelligence to students ranging from elementary to high school levels.

VOLUNTEER EXPERIENCE

• Member, SeeSeon Academy

(Handong Global University, Mar. – Sept. 2017)

o developed IT solutions for the disabled; served on the team for the visually impaired.

• Member, ISEL S-Lab

(Handong Global University, Feb. – Jun. 2018)

- o researched Software Engineering; served on the team for researching a source code analyzer.
- Laboratory Leader

• Member, SW Education Pro bono

(Handong Global University, Feb. – Jun. 2018)

- o Educated middle school students on coding; served on the team for teaching App Inventor.
- Won an excellence award for software education.

EDUCATION

Handong Global University, Pohang, South Korea

Bachelor of Science in Engineering (Computer Science / Electronics Engineering)

Graduation: February 2021

Honors: cum laude

Graduate School, Korea University, Seoul, South Korea Master of Science in Cyber Security (Software Security)

Graduation: February 2023