Yeryeong(Rey) Kim

bluemonster@pusan.ac.kr • linkedin.com/in/icarusicarus
icarusicarus

Education

- **Pusan National University** *Mar 2017 - Current*
  B.S in Computer Science and Engineering

Work

- **Bear Robotics** *March 2022 - Current*
  Robotics System Engineer Intern
  - Developed a Robotics System.
- **PNU CAMEL lab.** *August 2021 - Current*
  Path Planning, Mapping Undergraduate Student
  - Researched a robot path planning and mapping.
- **Daydream lab.** *June 2021 - August 2021*
  Web Full Stack Developer Intern
  - Developed a process management service on the web.
- **UXIS** *March 2021 - June 2021*
  Deep Learning RnD Intern
  - Developed an algorithm for calculating concentration through eye tracking.
  - Using Pyhton, OpenCV and Google Mediapipe

Project

- **Hexapod that Grow Plants** *October 2021 - December 2021*
  - Developed a hexapod that checks the temperature, humidity, and illuminance of plants with an app and allows them to walk.
  - Dynamixel motors and OpenCR were used for Hexapod and designed the hardware and assembled the hardware of the hexapod with a 3D printer.
  - Communicated with sensors using STM32F107.
  - Tech Stack: Embedded Systems, Dynamixel SDK, OpenCR, STM32F107, C
- **Doctor Who Christmas Tree** *December 2021*
  - Developed a moving Christmas tree by parody of "The Christmas Invention" in Doctor Who Season 2.
  - Tech Stack: Embedded Systems, µC/OS-III, STM32F429ZI, C
- **CafeMate: Local coffee shops integrated gifticon service** *September 2021 - October 2021*
  - Developed a local coffee shops integrated gifticon service app so that non-franchise cafes can generate profits through gifticon services.
  - Won the 3rd Prize in PNU AI Opensource SW Hackathon.
  - Tech Stack: Flutter, Docker, NodeJS, PostgreSQL

- **Control Flow Integrity Enforcement for Embedded Systems** *May 2021 - October 2021*
  - Developed a binary instrumentation framework enforcing lightweight control flow integrity (CFI) for embedded systems using ARM TrustZone-M
  - Tech Stack: Embedded Systems, STM32 Nucleo L552ZE, Binary Rewriting, C, Python

- **Korean Scheme Interpreter** *Apr 2021 - May 2021*
  - For more accessible coding education, created a Korean Scheme.
  - Developed Korean Scheme Interpreter and VSCode Extension to use it.
  - Tech Stack: Compiler, Interpreter, Python, YoCode.

- **Service to crack down Sexually Exploitative Materials (SEM)** *Aug 2020 - Dec 2020*
  - Developed web services and programs to support victims of sex crimes and help police investigate as a Best of the Best Digital Forensic project.
  - Designed and proceeded the project as a **Project Manager** and selected as an excellent project.
  - Tech Stack: Python, NodeJS, MySQL.

- **Mole Game on FPGA** *Dec 2019*
  - Developed Mole Game that a input key that matches the LED mole within the time limit to increase score.
  - Tech Stack: Verilog, flowrian(a digital logic design tool).

- **Smart Medicine Case** *Jun 2019*
  - Developed SMC that can set an alarm for the time to take medicine, and warning alarm at front door when don't take the SMC.
  - Won the 2nd Prize in PNU Arduino Project.
  - Tech Stack: Arduino.

Extracurricular activities

- **Completed Coursera 'Neural Netwroks and Deep Learning' course** *Apr 2020*

- **Best of the Best 9th** *July 2020 - Feb 2021*
  - Funded by KITRI(Korea Infomation Technology Resarch Institute).
  - Completed Digital Forensic track.

Awards and Skills

- **Awards**
  - 3th Prize, PNU AI Opensource SW Hackathon *2021*
  - 2nd Prize, PNU Arduino Project *2019*

- **Papers**
  - "Suggestion of Open Chat Room Investigation using Logging Bot", KDFS *2020*

- **Skills**
  - Programming Language: **Python**, C/C++, Java
  - OS : **Linux, Windows**
  - Web/App : NodeJS, MySQL, React, Flutter
  - Modeling : Fusion360, AutoCAD
  - Good at Python programming and Web Server side programming.

- Have experience in using EnCase, FTK and various forensic tools.