Junseok Lee

437-348-4651 junseok3124@gmail.com linkedin.Junseok github.com/jun081301 Junseok Lee's Website

EDUCATION

McMaster University **Expected Completion, April 2026**

Bachelor of Engineering in Computer Engineering (CO-OP) *Hamilton, Ontario, Canada*

- Enrolled in **Level 4** of the Computer Engineering (Co-op) at McMaster University with a **cumulative GPA: 3.1/4.0.**
- **Relevant Coursework**: Logic Design, Digital Signal Processing, Circuits and Waves, Programming, Hardware Design, Web and System Development, Control System, SCADA System

SKILLS

Programming Languages: C, C++, Python, Java, JavaScript, Verilog (FPGA), Bash, HTML/CSS
Software & Tools: PSpice, LTSpice, AutoCAD, MySQL, CODESYS, PLC, SCADA Systems, Arduino, Danfoss Guide +1
Frameworks & Libraries: React, Flutter, Node.js
Development & Analytics: Git, GitHub, GitLab, Linux, Google Analytics, IntelliJ, RStudio

WORK EXPERIENCE

SROOK | *South Korea* | *Google Analytics, Java, JavaScript, MySQL, HTML/CSS* **June 2024 - August 2024**

- Developed **integrated website reports** using **Java and JavaScript**, optimizing system performance and design.
- Analyzed consumer behavior by managing and retrieving **Google Analytics** data through **MySQL** and **Google Cloud**, improving data-driven decision-making.

Flodraulic | *ON, Canada | CODESYS(PLC), CAN Protocol, Danfoss Plus+1, AutoCAD, Flutter* **August 2024 - Current**

- Designed **HMI system** and developed control system and hydraulics with **CODESYS**, **AutoCAD**, Danfoss +1 Guide and Service tool (logic design tool) as a **Control System Engineer.**
- Diagnosed and resolved **wireless system issues** (transmitters, receivers, internal logic, cable harnesses), **reducing troubleshooting time by 40%**.
- Developed **custom debugging solutions** tailored to client needs using **Flutter**, improving diagnostic accuracy and **enhancing user experience** for the company's app. Managed **data visualization** with **Adobe XD, Illustrator, and Microsoft Excel**, streamlining reporting processes.

PROJECTS

Hardware Implementation of an Image Decompressor | *Verilog, C* **December 2023**

- Designed and implemented a **hardware-based image decompression system** on an **Altera DE2 FPGA**, achieving **2.3 million computations per minute**.
- Developed **custom decoding circuitry** to process. **mic17 compressed images**, utilizing **UART for data transfer and SRAM for storage** and applied **Color Space Conversion and Inverse Discrete Cosine Transform (IDCT)** to enhance image quality while optimizing **memory and processing efficiency**.

Pacemaker | *Pacemaker, Python, MATLAB Simulink* *GitHub* **December 2023**

- Designed a **Digital Circuit Model (DCM)** to simulate the bioelectrical interface between a heartbeat programming application (built with **Python Tkinter**) and a pulse generator.
- Programmed the pacemaker's functionality for multiple operational modes and integrated **real-time electrogram simulations** using **MATLAB Simulink**.

Integrated Control System | *Python, Arduino, CAN BUS interface* **January 2025**

- Developed an **Arduino-based control system** at **Flodraulic**, optimizing **real-time data handling and device operability via CAN bus** with **dynamic protocol and baud rate adjustments**.
- Integrated **physical buttons and LED indicators**, enhancing **diagnostics and system flexibility**.
- **Improved the company's testing system**, **cutting troubleshooting time by 80%** through streamlined debugging and optimized communication protocols.

LEADERSHIP & VOLUNTEERING

Korean Students Association of Canada (KSAC) | *Head Finance of Student Affairs* **June 2022 - Current**

- Managed $6,000+ in event budgets, coordinating 10+ networking and cultural events for Korean engineering students and led financial planning and expense tracking, ensuring efficient resource allocation and sponsorship engagement.