Hyojin Seo

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EDUCATION

Colorado State University (CSU) Expected Graduation May 2023

- **B.S in Computer Engineering** **GPA 3.6**
- Minor: Computer Science and Mathematics
- Relevant coursework: Software Engineering, Machine Learning with embedded system, Microcontrollers and IoT, Linear System Analysis, Digital System Design, Data Structures, Circuit Theory Applications, Digital Circuit Logic, Circuit Analysis, Introduction to Robot Programming/Simulation, Algorithm theory and practice

SKILLS AND TECHNOLOGY

- **Programming Languages & Tools**: Python, Java, C/C++, bash, MATLAB, Quartus, Analog Discovery Waveforms, Unix, Git, JavaScript, NodeJS, ReactJS, MIPS Assembly
- **Hardware Tools**: Raspberry Pi, Arduino, Analog Discovery, Oscilloscope, Frequency generator, Multimeter

WORK EXPERIENCE AND PROJECTS

Software Engineer May 2023 – Present

Website link: https://www.ewandavies.org/courses/redictricting

- Directed data-intensive research using the Markov chain Monte Carlo (MCMC) algorithm.
- Developed sagemath code to create partitioned planar graphs.
- Conducted redistricting case study using data analysis and mathematical modeling.

CSU Electric GoKart May 2022 – May 2023

GitHub link: https://github.com/Electric-Go-Kart

- Refined and debugged PyQt6 code to optimize a user interface, showcasing proficiency in code optimization and debugging.
- Automaded installation and configuration process through a Bash scripting
- Resolving issues using Qt Modeling Language, exemplifying problem-solving skills.

NASA Space Grant January 2021 – May 2021

- Implemented machine learning algorithms using RetinaNet for object detection, demonstrating understanding of ML algorithms.
- Developed Python code for satellite imagery analysis, showcasing Python programming and data analysis skills.
- Trained and evaluated a deep neural network model, reflecting competency in machine learning techniques and model evaluation.

Air Pollution Wireless Sensor Hub January 2020 – May 2020

- Demonstrating proficiency in hardware programming using C++ and data collection.
- Processed and stored sensor data in real time to Google Spreadsheet, reflecting data management skills.
- Implemented I2C communications protocol for sensor integration, showcasing understanding of hardware-software integration.