Hojoung Jang

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OBJECTIVE

To obtain software engineering internship for summer 2020

EDUCATION

Purdue University, West Lafayette, IN *May 2021 (Expected)*
Bachelor of Science in Computer Engineering **GPA: 3.83/4.0**

- Relevant Courses: Object Oriented Programming in C++ and Java | Microprocessor Systems and Interfacing | Data Structures | Python for Data Science | Advanced C Programming

EXPERIENCE

Continuous Analysis of Many Cameras: Computer Vision Research *May 2019 – Current*

- Assisted Dr. Yung-Hsiang Lu in developing a prototype version of **near real-time image feature indexing storage system** using Python, MySQL, Vitess and MinIO that gathers live streams from public IP cameras around the world and allows user query for specific features such as humans or cars in videos
- Optimized the system to process and store images up to **108** frames-per-second (with multiprocessing)
- Managed Python scripts with skills in OpenCV, multiprocessing and object-oriented programming

Big Data Big Impact: sustainability focused technology organization *September 2019 – Current*

- Assisted in creating a new **machine learning model** that can classify plastic and glass bottles effectively
- Gathered dataset of plastic and glass bottles through data augmentation using PyTorch library
- Applied the idea of parsing videos to gather dataset images through Python and OpenCV library

PROJECTS

Android App Development *December 2019 – January 2020*

- Built a TODO managing app that allows users to create and manipulate a list of things to do
- Utilized user interaction features such as RecyclerView with CardView, item swipe actions, notifications and intents

Flappy Bird Game *November 2019 – December 2020*

- Implemented the Flappy Bird game using STM32 Microcontroller with a LED matrix as a display
- Interfaced a microcontroller using software to manage its internal and external hardware peripherals

New York Bike Traffic Data Analysis *November 2020*

- Applied the concept of linear regression, logistic regression and naïve Bayes classification to perform data analysis on New York bike traffic dataset using Python to come up with solutions to hypothetical real world problems

Interpreter & Compiler Project *October 2019*

- Utilized fundamentals of object-oriented programming to write C++ source code that simulates interpreter which converts bytecode binary files into instruction text files and Java source code that simulates compiler which converts instruction text files into bytecode binary files (supports custom set of instructions)

OpenAI Reinforcement Learning *June 2019*

- Implemented Q-learning and Deep Q-learning algorithm that can interact with and solve Frozen Lake game in OpenAI Gym library

SKILLS

Programming Languages:
C, C++, Java, Python, Assembly C, Bash (basics)