Hojoung Jang

OBJECTIVE

To earn a Software Engineering Internship for summer 2020 that can expand my knowledge and experience as a software developer

EDUCATION

Purdue University, West Lafayette, IN *May 2021 (Expected)*

Bachelor of Science in Computer Engineering **GPA: 3.85/4.0**

- Relevant Courses: Data Structures | Advanced C Programming | Python for Data Science | Object Oriented Programming in C++ and Java | Microprocessor Systems and Interfacing
- Dean's List & Semester Honors, *Fall 2018 & Spring 2019*

SKILLS

Programming Languages:

- C/C++, Python, Bash, MySQL/SQL (basic), HTML and CSS

Software Tools:

- Git/Github, Vitess, MinIO, Docker

EXPERIENCE

CAM2 Research Team, *Purdue University* *May 2019 – Current*

- Innovated a prototype **real-time video stream feature indexing storage system** that is different from most of the current offline processed video storage system using **Python**, **MySQL/SQL**, **Vitess**, **MinIO** and **Docker**
- Designed a fast and optimized video indexing system that can process and store images up to **108 frames-per-second**(fps) which achieved an **average of 6.5 times improvement** compared to a non-real-time video storage system
- Managed **Python** code with **OpenCV** that can download snapshots from IP cameras
- Developed a basic design to **scale** the system with multiple cameras using **multiprocessing** library in Python

PERSONAL PROJECTS

Game Master AI *June 2019 - Current*

- Utilized **Reinforcement Learning** to design an algorithm that can interact with new environment and play with various games in **OpenAI-Gym**
- Acquainted with the design to handle both **discrete and continuous state** environment which achieved handling **3 multiple environment** with one agent
- Experimented with a simple Q-learning algorithm to **Deep Q-learning** algorithm using **Tensorflow**
- Achieved about **1.5x faster learning** through **Q-learning**, **Deep Q-learning** and **replay buffer** on the Frozen Lake environment

Smart Mirror *January 2019*

- Inspired by numerous smart mirror projects on the Internet, utilized Raspberry Pi and Magic Mirror module to create customized smart mirror
- Designed and built a mirror screen that displays useful information such as time, weather forecasts and Google news headlines

Portfolio Website, *https://hojoung97.github.io* *August 2019 – Current*

- Utilized **HTML, CSS** and **Javascript** to build personal portfolio website that can showcase my profile

ACHIEVEMENTS

DATE 2020 Research Paper *September 2019*

- Successfully submitted the research paper on near Real Time Feature Indexing Storage System to **DATE 2020 conference** and is listed as one of the authors of the paper