Hill Xiong

Computer Engineering Undergrad

Address: Elk Grove, CA, 95758
Language: C++, HTML/CSS, Matlab, Verilog, MIPS
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Summary

Undergraduate Computer Engineer at University of California: Santa Barbara looking for Software Engineer Internship. Through course works, I have build up an understanding of data structures, algorithms, and computer architecture, and I wish to apply everything I learned in practical use.

Education

Computer Engineering B.S. - University of California: Santa Barbara 2021

· GPA: 3.2
· Expected Graduation: June 2021

Academic Courses

Data Structure and Algorithms I in C++ - University of California: Santa Barbara 2019

· Implemented Max-Heap to output 3 student with the highest grade of a given gradebook data
· Implemented Prims/Kruskal Algorithm to generate a MST of a given weighted graph

Data Structure and Algorithms II in C++ - University of California: Santa Barbara 2019

· Used DP to efficiently calculate the similarity of 2 DNA strings
· Implemented Randomized Algorithm to find the linear regression line of a given data set

Image Processing in Matlab - University of California: Santa Barbara 2019

· Implemented Seam-Carving and Randomized Patch Match method for content-aware image resizing
· Implemented Richardson-Lucy Algorithm to denoise an image using a known-blur filter

Computer Network in C - University of California: Santa Barbara 2019

· Designed and Implemented a TCP hangman server/client capable of multiple concurrent games by using threads
· Understand different routing protocols (e.g. Link-State, Distance-Vector, BGP)

Computer Architecture in Verilog/MISP - University of California: Santa Barbara 2019

· Simulated a MISP single/multi cycle processor in ModelSim
· Wrote a calculator and radix sorting algorithm using MISP assembly language

Circuit Design in Verilog - University of California: Santa Barbara 2019

· Programed a FPGA to be able to be used as a microcontroller for tail-light signal of a car
· Programed a FPGA to work as a timer when connected to a LED display

Personal Project

Personal Website - xempst.github.io 2018

· Built a personal resume website using HTML and CSS

Visual Novel Game - Programmer/Story Writer 2017

· Choice driven game with multiple ending written in Python