Xunle Mai

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Graduating undergraduate in University of California San Diego looking for a internship relating on computer science.

Authorized to work in the US for any employer

Work Experience

Nachos

University of California San Diego - San Diego, CA
September 2018 to December 2018

Implemented various functionality in Nachos operating system with proper synchronization in the presence of multi processes and multi-programming. Demand paging technique was used with the clock algorithm for swapping pages in memory.

9-Bit Instruction Set Architecture

University of California San Diego - San Diego, CA
December 2012 to September 2018

I designed the instruction set for my special-purpose reduced instruction set (RISC) processor with only 9-bit instructions. The processor was designed using Verilog. The processor is responsible for running 4 programs - encrypter, decrypter, fixed pointer to IEEE 754 floating point converter, and float to fix converter.

Issue Tracker Web Application

University of California San Diego - San Diego, CA
July 2018 to July 2018

A simple issue tracker web application with firebase. In addition to using the regular cloud firestore as backend, I also implemented REST by using the XMLHttpRequest with POST, GET, DELETE, and PATCH. Technique of PWA with server worker was also used to improve its performance and offline functionality.

Android Chat App

University of California San Diego - San Diego, CA
March 2018 to June 2018

In a team of ten, we created a simple chat app with Android Studio. The app is able to find a match of two users who are shaking their devices at the same time and are sharing the same interests. Use cases, user stories, requirements, screen sequence diagram, test cases, database schema all helped to designed the app in a user friendly way.

Pathfinder, LinkPrediction, Invitation

University of California - San Diego - San Diego, CA

March 2018 to March 2018

Given a actors-movies database, I designed a graph and find the shortest path/connection between two actors with the years of movies as the weights. Then, I implemented a program to predict two actors' possible future interaction by analyzing their collaboration histories using matrix multiplication. Finally, I implemented a ceremony invitation where each actor invited should know k numbers of other actors. It was accomplished by using k-cores decomposition.

Autocompleter and Document Generator

University of California - San Diego - San Diego, CA
February 2018 to February 2018

Using C++ to autocomplete part of a word enter by a user. It was accomplished by a Ternary Trie structure. It was also able to generate a document given a word. It was accomplished by first analyzing a large speech by a person. Then, calculate the frequency of the words that follow the given word and choose the most likely word.

Education

Bachelor's in Computer Science and Engineering

University of California-San Diego - San Diego, CA
September 2017 to June 2019

Bachelor's in Computer Science

University of California-Riverside - Riverside, CA
September 2015 to June 2017

High school in Computer Science

Don Bosco Technical Institute - Rosemead, CA
September 2011 to June 2015

Skills

C++ (6 years), Javascript (Less than 1 year), HTML 5 (Less than 1 year), CSS3 (Less than 1 year), SQL (Less than 1 year), Java (2 years), Haskell (Less than 1 year), Assembly Language (2 years), Git (4 years), Verilog (Less than 1 year), Linux (2 years), Python (1 year)

Assessments

Technical Support Skills — Proficient

February 2019

Measures a candidate's ability to apply protocols to identify errors and solutions in order to maintain system function.
Full results: https://share.indeedassessments.com/share_assignment/abjcvk61iikybda

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