Xiaoyun(Larry) Wang

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Portfolio: https://larrywong98.github.io/

WORK EXPERIENCE

Cadence Design Systems, Inc. ***Shanghai, China***

Software Engineer Intern 07/2019 – 06/2020

Project Name: Chip design optimization based on big data platform on Hadoop and Spark

- Count boxes in a chip design with Geospark and queried the shortest path between lists of pins
- Calculated correlations between stages. Plotted several graphs of the relations between two stages
- Imitated implementation of Geospark partition and geometry data structure
- Utilize property graph and triplets to store the pins relations. Implement the level traverse algorithm on distributed system
- Written automation test scripts to build and compile product tools

Snowlake-Tech ***Shanghai, China***

Software Engineer Intern 07/2020 – 10/2020

Project Name: Hyper biology computing system based on molecular dynamics

- Collaborated and discussed the architecture of the molecular computing system for protein with OOP concepts
- Tested and determined the number of bits to used for FPGA
- Implemented molecular dynamics formula and molecule data structure to the computing system
- Calculated non-bond force and bond force between two atoms to compute the track of the atom.

Chinan Asset Management Co., Ltd. ***Shanghai, China***

Software Engineer Intern 06/2021 – 08/2021

- Created and built database tables using MySQL for financial data storage
- Set up sync programs with Choice, Suntime and Wind financial data providers to automatically retrieve market data.
- Evaluated factors in the market to find out the top 20% factors. Assisted in constructing the factor analysis platform
- Predicted stock buy and sell time by implement indicator models of BOLL, MACD, RSI, etc
- Understood the basics of contract and fetch data using API from different sources and integrate into our custom database

EDUCATION

University of Southern California 08/2020 – 12/2022

Master of Science in Computer Science GPA: 3.5/4.0

Courses: Analysis of Algorithms, Advanced Mobile Devices and Game Consoles, Web Technologies, 3-D Graphics and Rendering, Multimedia Systems Design, Information Retrieval and Web Search Engines

Shanghai Ocean University 09/2016 – 06/2020

Bachelor of Engineering in Computer Science GPA: 3.6/4.0

Courses: Basic Programming(C), Assembly Language, Compiler Principles, Java Design Patterns, Operating System, Database System, Algorithm Design, Data Structure, etc

PROJECTS

Custom Search Engine 01/2022 – 05/2022

- Created search engine web page with **Bootstrap** and **PHP**. Sending requests and retrieve JSON data return from the server
- Extracted links from 16400 web pages and built up Solr server searching method with Pagerank algorithm
- Enhance the search engine with autocomplete and spellcorrect function
- https://github.com/larrywong98/SearchEngine

Weather Forecast App 09/2021 – 12/2021

- Created **AngularJS** and **NodeJS** web weather forecast application and deployed to GCP
- Created IOS weather forecast application with UIKit and embedded Highcharts to detailed data tab
- https://github.com/larrywong98/WeatherForecast

Cells at work 2D RPG game 01/2021 – 05/2021

- Designed game components such as gameplay interface, mechanism, storyline, etc
- Implemented and integrated game request systems, maps, dialogue system, scene control system
- Implemented finite-state machine for character behaviour
- https://github.com/larrywong98/Doodler

Fish Image Classification 04/2017 – 11/2018

- Utilized **Django** framework to process POST requests and predicted results based on ResNet50 model
- Built Wechat Mini Program client side interface. Sent Ajax requests to interact with Django

SKILLS

Programming: Python, C/C++, Scala, Java, HTML, CSS, JS, SQL, C#

Software and Platform: Hadoop, Spark, Unity, MySQL, Flask, Nginx, Spring, Solr , Docker, OpenCV, Git, Bootstrap, etc

Mathematics: Multivariable Calculus, Probability Theory, Linear Algebra, Discrete Mathematics