Derek Xu

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WORK EXPERIENCE

TD Asset Management

May 2018 - August 2018

Portfolio Analytics Developer (Full Stack)

- Created new multi portfolio exposure tool in React/Redux that allows portfolio managers to compare various metrics of securities held across multiple portfolios
- Processed cash flow spreadsheets with Pandas and automated uploading them to SQL Server database
- Made UI/UX changes to several tools to improve ease of use (trade blotter navigation, portfolio selection modal)

PROJECTS

FluxNote

Electric City Hacks 2017

HTML5 + JavaScript, Socket.io, Node.js

- Uses the magnetometer readings from any smartphone and mathematically calculates the position of a magnetic pen
- Data is sent through a Socket.io backend to a web app which lets the user draw, edit and save images

Finden

Hack the North 2017

React Native + Redux, Socket.io Node.js, Firebase, Watson API

- Multiplayer scavenger hunt game where players receive points for taking pictures of targets
- Built the application using React Native and Redux, using Redux thunks to leverage asynchronous functions
- Connected app to team's backend which handled image processing, dynamic scoreboard and authentication

muBot

1A Final Project 2017

Raspberry Pi, Python, GPIO, SciPy

- Robot that dances and flashes LEDs to the beat of any song
- Parallelized fast fourier transform implemented to provide optimal performance during spectral flux onset detection

EDUCATION

University of Waterloo

2017 - 2022

SKILLS

Application Development

C/C++, OpenFrameworks, Java, Processing, React Native

Web Technologies

React, Redux, JavaScript, Python, SQL, Firebase, HTML, CSS, Flask, Django, jQuery, Dojo

Tools

Vim, Git, VSCode

AWARDS

2017 Electric City Hacks 3rd Place

2017 ECOO Programming Contest Eastern Ontario Regional Champions

2017 ECOO OCDSB Boardwide Champions

USA Computing Olympiad Gold Division

Grade 12 Computer Science (ICS4U) Subject Award

Grades 9-12 OCDSB Silver Medal

INTERESTS

Competitive Programming

Top 20% of users on CSAcademy 98th percentile in HackerRank algorithm contests

Music

Guitar, Singing, Piano, Analysis

Yoyoing

Soccer

Candidate for Bachelor of Software Engineering