

Jonathan Huo

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github.com/jonhuo11
jonhuo11.github.io

Technical Background

Languages:	<i>Javascript, nodejs, HTML/CSS, Python, C#</i>
Libraries:	<i>Expressjs, React, flask, numpy, pandas</i>
Infrastructure:	<i>Firebase, mongoDB, Heroku, EC2</i>
Environment:	<i>git, regex, Unity3D, Blender</i>

Showcase Projects

c3py (python)

Feb 2016 to present

github.com/jonhuo11/c3-py

- Original, self written solutions for problems from the senior division of the Canadian Computing Contest written in Python 3
- Solutions are for contests from 2000 to 2019 and are verified by the online grader at <http://dmoj.ca>
- Became well versed in algorithms, data structures, design patterns, and the Python language

bankbot v2 (nodejs, Firebase, discord.js, EC2)

Aug 2020 to present

github.com/jonhuo11/bank-bot-v2

- Discord bot that implements a UNIX style command interface for users to dynamically store and receive files in the cloud through the native Discord client
- Allows users to conveniently and securely offload local files to the cloud by permanently storing them in Discord chats
- Developed using the discord.js/commando.js libraries and uses Firebase for backend purposes. Bot instance is hosted on an AWS EC2 instance

gangplank demo (C#, C++, Unity3D, Blender)

June 2020

github.com/jonhuo11/gangplank-demo

- Tech demo for a graphical rendering and asset production pipeline created in 42 hours for the UW Games Institute summer jam of 2020
- User friendly pipeline that enables game developers to turn animated 3D models into detailed 2D sprite sheets that include beautiful, dynamic 2D normal maps
- Created a visually striking "ToonLit" shader in C++ for the Unity3D engine that converts smooth, 3D shadows into 2D pixel-art style shading

Professional Experience

City of Waterloo Aquatics

Sept 2018 to July 2019

- Part time aquatics assistance and facility management role
- Assisted in delivery of needs-based, adaptive aquatic lessons for children and teenagers

Stork Family YMCA Aquatics

Jan 2020 to Aug 2020

- Part time aquatics supervision and administration role
- Designed and delivered engaging aquatics lesson plans for a varied range of learning groups
- Performed safety oriented facility upkeep and logistical record keeping/data entry

Education and Awards

- Ontario Secondary School Diploma, Waterloo Collegiate Institute, class of 2017
- SHAD 2020 fellow and member of the SHAD alumni network
- Score of 4 on the 2020 AP Physics 1 exam
- Average of 98% across senior high school AP STEM courses (Functions, Physics, Chemistry, Biology)