

JONATHAN HSU

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EDUCATION

UNIVERSITY OF CALIFORNIA, SAN DIEGO

October 2020 - Present

Bachelor of Science, Major in Computer Science, Minor in Business

Relevant Coursework: Deep Learning, Computer Networks, Introduction to Computer Security, Database System Principles, Software Engineering, Design & Analysis of Algorithms, Data Science in Practice, Theory of Computation, Advanced Data Structures

SKILLS

Programming Languages

Python, Java, C, C++, Javascript,
HTML, CSS, Matlab, R, Solidity,
Swift

Web Development

ReactJS, Node.js, Flask, REST,
Express, GCP, DigitalOcean, Docker,
MySQL, Shopify

Machine Learning / Data

Pytorch, Tensorflow, Keras, OpenCV,
Scipy, Numpy, Matplotlib, Pandas

EXPERIENCE

DM CONSULTING | *Full Stack Developer*

Jun 2022 – Present

- Created a Google Cloud Platform run website from the ground up. Website contains a login system that securely stores user data and allows for password reset using auth cookies. A file system that lets users load, save, save-as files or even parts of files individually using Google Cloud SQL.
- Utilizing REST, Node.js, and Python, I gathered calculation inputs, ran calculations, and generated an automated, customizable pdf with pdf-kit. Configured the website using Ubuntu and Apache and verified SSL certificate using Certbot
- Built an automated system for maritime docking calculations which could create increased customer retention and a new revenue stream through customer subscriptions to the website

JACOBS SCHOOL OF ENGINEERING | *Undergraduate Researcher*

Oct 2021 – Jun 2022

- Developed an MLPaint application to help monitor Mangrove populations by classifying individual pixels in high resolution aerial drone imagery of said populations.
- Utilized Python to help develop assistive machine learning algorithms to efficiently label image segmentation datasets

DRS DAYLIGHT SOLUTIONS | *Software Engineer Intern*

Jun 2021 – Sep 2021

- Developed a Helium Leak Checker software which will be used to test high power laser systems in production
- Utilized the software development lifecycle to lead a project from initial use cases and requirement gathering to implementation, testing, and maintenance
- Gained experience with The Software Development Life Cycle, Use Case Gathering, Requirement Gathering, Qt/C++ Development, GUI Design, Rapid Prototyping, Agile Software Development, Git & Bitbucket, JIRA task management, Database Design, Hardware communication (SCPI over Serial), Data Science and Analysis

UNISOC COMMUNICATIONS, INC. | *Software Engineer Intern*

Sep 2019 – Mar 2020

- Created a visualization program that converts bit data about radio frequency chip components into a diagram of the chip's integrated circuit designs with key parts highlighted
- Assisted with radio frequency chip testing by creating a Matlab program that allows for easy verification of functionality
- Developed programs which have great potential to increase the efficiency and effectiveness of radio frequency chip testing

PROJECTS

THE SUPERB OWL CLUB | *Web3 NFT Developer*

Jun 2021 – Sep 2021

- Created an Ethereum pay-out utility NFT using Solidity and the Openzeppelin library. Tested our smart contract using Hardhat and the Rinkeby test network
- Developed a mint website using React and Chakra UI. Created a Python script to generate NFT metadata which was uploaded to the Pinata IPFS cloud

UNTOLD WEBSITE | *Shopify Web Developer*

Aug 2020 – Oct 2020

- Created a customized Shopify website through HTML/CSS and Shopify Liquid to produce a unique customer experience for site visitors and increase sale generation
- Completed thorough testing of website responsiveness and created a QA testing plan with key stakeholders