# JONATHAN HSU

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## EXPERIENCE

**DM CONSULTING |** *Full Stack Intern*　　　　　　　　　　　　　　　　　　　　Jun 2022 – Sep 2022
- Developed a full-stack website for maritime docking reports, integrating algorithms for efficient data processing and automated generation of PDFs, leading to over 30k in revenue.
- Constructed a robust backend and database management system for the website using **Node.js**, **Express**, and **Cloud SQL**, hosted on a scalable **Google Cloud Platform** container.
- Designed the website's front-end interface using **HTML**, **CSS,** and **JavaScript.**

**JACOBS SCHOOL OF ENGINEERING |** *Undergraduate Researcher*　　　　　　　　　Oct 2021 – Jun 2022
- Developed and maintained machine learning algorithms in **Python** to improve image classification efficiency for Mangrove population monitoring by 10%.
- Improved the front-end interface of our desktop app using **Java** GUIs, improving the app's usability for researchers.
- Undertook a field expedition to Jamaica, capturing high-quality aerial drone imagery of Mangrove forests, providing a robust dataset for algorithm training and validation.

**DRS DAYLIGHT SOLUTIONS |** *Software Engineer Intern*　　　　　　　　　　　　Jun 2021 – Sep 2021
- Engineered Helium Leak Detection software using **C++**, optimizing the testing process for high-power laser systems in production and improving testing speeds by 25%.
- Managed the project using **Agile** methodologies, employing tools like **BitBucket**, **GitKraken**, and **JIRA** for version control and task management, ensuring seamless team collaboration and project tracking.
- Designed and implemented a user-friendly GUI using **Qt,** focusing on usability for lab technicians.

## PROJECTS

**FILOS INC. |** *Founder*　　　　　　　　　　　　　　　　　　　　　　　　　　Dec 2022 – Dec 2023
- Developed and designed a digital wellness app using **Swift** for programming and **Figma** for UI/UX design, aimed at helping users manage digital habits and reduce screen time.
- Leveraged **Mixpanel** analytics to understand user behavior, guiding product improvements and enhancing user experience.
- Conducted an in-depth competitive analysis to establish a unique market position and effectively drove the app's marketing strategy, creating compelling content for social media platforms that significantly boosted the app to over 650 downloads and 100 DAUs.
- Acquired $14.5k in grants and actively participated in notable incubator and accelerator programs, significantly advancing our company's growth and market visibility.

**THE SUPERB OWL CLUB |** *Web3 NFT Developer*　　　　　　　　　　　　　　　Jun 2022 – Sep 2022
- Developed a revenue-generating **Ethereum NFT** project in **Solidity**, where users have the opportunity to mint a randomly assigned NFL team and obtain payouts directly linked to the team's performance.
- Created a user-friendly minting website using **React** for an engaging user experience. Crafted **Python** scripts to generate NFT metadata, which was uploaded to the **Pinata IPFS** cloud for decentralized storage and accessibility.

## SKILLS

**Programming Languages**
Python, Java, C, C++, Javascript, HTML, CSS, Matlab, R, Solidity, Swift, Dart

**Development Tools**
ReactJS, Node.js, Flask, REST, Express, GCP, DigitalOcean, Docker, MySQL, Mixpanel, Figma

**Machine Learning / Data**
Pytorch, Tensorflow, Keras, OpenCV, Scipy, Numpy, Matplotlib, Pandas

## EDUCATION

**UNIVERSITY OF CALIFORNIA, SAN DIEGO**　　　　　　　　　　　　　　　October 2020 - March 2024
BSc in Computer Science, Minor in Business
GPA: 3.7
Relevant Coursework: Computer Architecture, Deep Learning, Computer Vision, Software Engineering, Operating Systems, Computer Security, Database System Principles, Design & Analysis of Algorithms, Data Science, Advanced Data Structures