Nicholas Wang

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EDUCATION

University of California, Berkeley - *Computer Science* (GPA: 3.82)   **Spring 2022**
- **Relevant Coursework:** Data Structures, Efficient Algorithms, Techniques of Data Science, Information Devices, Blockchain Fundamentals, Operating Systems, Computer Architecture

PROFESSIONAL EXPERIENCE

Software Developer Intern - *ThoughtCloud*   **May 2020 - August 2020**
- Designed and implemented **React** web application and **iOS** mobile application using Swift 5, UIKit, and SwiftUI
- Structured back-end programming using **Neo4j**, **Firestore**, and other **NoSQL** frameworks deployed on **AWS**
- Integrated application with back-end services through **Django** Rest Framework and respective pip packages

iOS Developer - *Mobile Developers of Berkeley*   **January 2020 - Current**
- Plan, design, and develop **iOS** apps for UC Berkeley's premier **mobile** development incubator
- Developed Pokedex app containing searchable/sortable Pokemon data, a weather application using Dark Sky **API**, Swift JSON decoding, **Postman**, and a member login system through a real-time **BaaS** database

Technical Operations Intern - *Berkeley Skydeck*   **January 2020 – March 2020**
- Worked on **SkyPortal** website using the Bootstrap framework through **Brilliant Directories**
- Created and extracted multiple reusable **Bootstrap** components for recyclable implementation

Web Development Intern - *Trademarkia*   **June 2019 – August 2019**
- Developed ten front-end websites with **JQuery** that receive over a million users per month
- Converted ~100 Gigabytes of raw **XML** data into **SQL** data to enter user info into databases

Undergraduate Laboratory Assistant - *UC Berkeley EECS Department*   **August 2019 - December 2019**
- Worked in the Electrical Engineering department for EE16A, the course about Designing Information Systems
- Taught students to program with **NumPy**, use Arduino boards, and set up **iPython** notebooks

PROJECTS

Huddle: [iOS Application]   github.com/Miclin1024/Huddle
- iOS application to find students around you in the same class for assignment collaboration and help
- Structure back-end around **Firebase's BaaS** database, its **Cloud Messaging** API, and **Firebase functions**
- Used **Google Maps API** to display markers of surrounding students given geolocation coordinates

iClass: [iOS application]   github.com/rbatra2000/iClass
- iOS application to help professors actively engage students and track attendance efficiently via mobile devices
- Implemented login system via **Firebase** Authentication, and used Firestore database for back-end storage
- Integrated ChameleonFramework **cocoapod** for a color framework, and CircleMenu cocoapod for UI/UX design

PintOS: [Operating System]   nicholaswang.me/#projects
- Complete implementation of the PintOS operating system with concepts involving kernel-level threads, user-level programs, the buffer cache, memory management, and the **UNIX Fast File System**
- Allocated one thread per user program, assigning priorities to each thread to enable priority donation
- Implemented the buffer cache using the clock algorithm for block replacement of extensible inode files

War Game: [React Web Application]   github.com/nicholaswang2000/wareact
- Web application that simulates a game of War, the playing card game, against a computer on a browser
- Implemented all ingame and endgame logic through **JavaScript** / **JSX** with reusable components
- Used **React**, Bootstrap, Deck of Cards API, and **Axios** to handle remote API requests from web server

SKILLS

Languages: Swift, Java, Python, Javascript, JSX, Cypher, SQL, C, C#, Objective-C, Solidity
Software Experience: AWS, Neo4j, MongoDB, React, React Native, Node, Django Rest Framework, Bootstrap
Hobbies: Gaming, Badminton, Movies, Travel, Piano, Karaoke, Making Videos