Nathan Tsai

Full-Stack Web Developer | iOS App Developer

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EDUCATION

University of California, Los Angeles | *Computer Science*

EXPECTED GRADUATION: JUNE 2019 GPA: **3.86**

EXPERIENCE

Software Engineering Intern | Novacoast

APR 2017 – PRESENT

- Develop the full-stack of a robust web application, from the RESTful API to the UX
- Technologies: Golang, JavaScript, MongoDB, Docker, Gitlab, jQuery, HTML, CSS

Mobile Developer | UCLA Library

JAN 2017 – PRESENT

- Design the official UCLA Library app that provides users with real-time catalog data
- Technologies: Swift 3, Alamofire, Google Maps SDK, Google Analytics, CocoaPods

Web Developer | Daily Bruin

JAN 2017 – JUN 2017

- Transform research, data, and journalism into informative, user-friendly web pages
- Technologies: JavaScript, jQuery, Bootstrap, Mapbox, Handlebars.js, HTML, CSS

PROJECTS

Pocket Change | *Personal Finance App* [iOS]

- Constructed an iOS app with Swift 3 that allows a user to view, analyze, and manage their personal budgets by illustrating how much, when, where, and why money was spent
- Designed animated pie charts and bar graphs that plot transaction data for each budget over various time intervals, beautifully visualizing a user's spending history over time
- Utilized regular expressions for data validation by dynamically enabling or disabling buttons and limiting text field inputs to ensure data integrity, validity, and legitimacy

MarkItPlace | *E-Commerce Platform* [Web]

- Created a full-stack web application with JavaScript, providing an online platform for users to buy, sell, and search for items by interacting with geo-markers on a real-time map
- Devised filtering algorithms that allow users to find items by key word, category, price range, and location, displaying only the markers on the map that match the search criteria
- Reduced load time by leveraging already loaded elements, efficiently saving the current state of the page before transitioning to another view in order to avoid slow page refreshes

DataQuake | *Live Earthquake Data* [Web]

- Designed a web application with JavaScript that maps the location and size of earthquakes around the world, rendering circles with radii that correspond to their respective magnitudes
- Implemented a search bar that parses through the real-time earthquake data, plotting only the earthquakes at the specified location, magnitude range, or time frame on a resizable map
- Utilized Handlebars.js to automatically parse, structure, and style the data gathered from the USGS database, such as the timestamps, locations, and magnitudes of each earthquake

SKILLS

Programming Languages
C++, Golang, Swift 3, JavaScript, C, Java, Bash, Python, Verilog

Relevant Coursework
Algorithms and Complexity [CS 180]
Operating System Principles [CS 111]
Design of Digital Systems [CS M51A]
Computer Networks [CS M117]

Platforms
Docker, Github, Gitlab, Sublime, Box, DocuSign, Salesforce, Solidworks

Libraries | Frameworks
jQuery, WebGL, Handlebars.js, Bootstrap, Materialize.io

Markup Languages
HTML, CSS

IDEs
XCode, Android Studio, Microsoft Visual Studio, Eclipse

Languages
English [native], Mandarin [fluent]

AWARDS

Dean's Honor List
Scholastic distinction granted to UCLA engineering students who obtain a GPA of **3.7** or above and enroll in at least **15** units [Spring 2016, Fall 2016, Winter 2017, Spring 2017]

AP Scholar with Honor
Granted to students who receive an average score of at least **3.25** on all AP exams taken, and scores of **3** or higher on four or more of these exams

Community Service Award
Awarded to students who have given at least **300** hours back to the community through volunteer work