

# Nathan Tsai

App Developer | Web Developer | Hacker

## 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** | **BuildUCLA**

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 Development Intern** | **Daily Bruin**

JAN 2017 – PRESENT

- 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 users to manage their personal budgets by illustrating how much, when, 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 that all inputs from a user are valid

**MarkItPlace** | *E-Commerce Platform* [Web]

- Integrated a back end server storing user data (username, items for sale) with a front end application with **JavaScript** that utilizes the Facebook, Google, and Mapbox APIs
- Created a filtering algorithm that allows a user to find a product by key word, category, price range, and location, displaying only the markers on the map that match search queries
- Reduced load time by taking advantage of already loaded elements, efficiently saving the current state of the page before transitioning to another view, avoiding slow page refreshes

**DataQuake** | *Live Earthquake Data* [Web]

- Designed an interactive map with **JavaScript** by integrating Google Maps with dynamically drawn circles with radii that represent the magnitudes of each earthquake
- Implemented a search bar that parses the earthquake data and displays only the earthquakes at the specified location or within the given magnitude range
- Utilized Handlebars.js to automatically structure and style the data gathered from the USGS database, such as the timestamps, locations, and magnitudes of each earthquake

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## SKILLS

**Programming Languages**

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

**Software**

Docker, Github, Gitlab, Sublime, Box, Slack, Salesforce, Solidworks, Excel

**Libraries | Frameworks**

jQuery, WebGL, Handlebars.js, Bootstrap, Materialize.io

**Markup Languages**

HTML, CSS

**Programming Concepts**

Object-Oriented Programming, Data Structures, Sorting Algorithms, Inheritance, Polymorphism, Big O Notation, Encapsulation, Trees

**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