

# Nathan Tsai

Software Engineer | Hackathon Enthusiast

## EDUCATION

**University of California, Los Angeles** | *Computer Science*

EXPECTED GRAD: JUN 2019

GPA: **3.86**

## EXPERIENCE

**Software Engineering Intern** | Qualtrics

JUNE 2018 – SEPT 2018

- Develop Angular feature for preconfiguring a template of data visualization widgets
- Technologies: Angular, Node, JavaScript, Lodash, Jasmine, Mocha, Chai, JIRA, Git

**Software Engineering Intern** | Novacoast

APR 2017 – JUNE 2018

- Build a secure RESTful API and intuitive UX to store, manage, and query contracts
- Technologies: Golang, Python, JavaScript, MongoDB, Box, DocuSign, Docker, Git

**Mobile Developer** | UCLA Library

JAN 2017 – DEC 2017

- 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]

<https://github.com/nwtsai/PocketChange>

- 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]

<https://github.com/nwtsai/MarkItPlace>

- 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

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

<https://github.com/nwtsai/DataQuake>

- 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

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## SKILLS

### Programming Languages

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

### Relevant Coursework

Algorithms and Complexity [CS 180]  
Machine Learning [CS M146]  
Operating System Principles [CS 111]  
Computer Networks [CS M117]  
Design of Digital Systems [CS M51A]

### Platforms

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

### Libraries | Frameworks

Angular, Node, jQuery, WebGL, Handlebars, Bootstrap, Materialize

### Markup Languages

HTML, CSS

### IDEs

Sublime, 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