

Nathan Tsai

App Developer | Web Developer | Hacker

EDUCATION

University of California, Los Angeles | *Computer Science*

EXPECTED GRADUATION: JUNE 2019

GPA: **3.82**

EXPERIENCE

Developer Intern | **Novacoast**

APR 2017 – PRESENT

- Develop the full stack of a robust web application, from the RESTful API to the UX
- Technologies: Golang, JavaScript, Docker, Gitlab, jQuery, Typeahead, 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, GoogleMaps 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 (iOS App)*

- 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 App)*

- 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 App)*

- 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, Salesforce, Solidworks, Microsoft 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, 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