

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

- Create secure, robust web applications and tools that connect databases to clients (**Go**)

Mobile Developer | BuildUCLA

JAN 2017 – PRESENT

- Develop the official UCLA library app that provides users with real-time data (**Swift**)

Web Development Intern | Daily Bruin

JAN 2017 – PRESENT

- Design and maintain the online edition of UCLA's newspaper (**JavaScript, jQuery**)

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 (iOS), Go, JavaScript, C, Java, Bash, Python, Verilog

Markup Languages

HTML, CSS

Programming Concepts

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

Software

Docker, Github, Salesforce, Solidworks, Microsoft Excel

Libraries / Frameworks

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

IDE's

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