Nathan Tsai

Software Engineer | Hackathon Enthusiast

nwtsai@gmail.com
805-452-8162
https://www.nwtsai.com
https://www.github.com/nwtsai
https://www.linkedin.com/in/nwtsai

EDUCATION

University of California, Los Angeles | Computer Science
EXPECTED GRADUATION: JUNE 2019
‣ GPA: **3.8**

EXPERIENCE

Software Engineer Intern | Qualtrics
JUNE 2018 – SEPTEMBER 2018
‣ Developed Angular modules for preconfiguring templates of data visualization widgets
‣ Constructed a dependency tree to efficiently inject customer data into generic templates
‣ Unit tested Angular components with Mocha and Sinon to achieve 100% test coverage

Software Engineer Intern | Novacoast
APRIL 2017 – JUNE 2018
‣ Built a REST API with Go that queries 2,500+ customer contracts stored in MongoDB
‣ Automated customer acquisition processes by integrating with Box and DocuSign APIs
‣ Deployed Docker containers to facilitate communication between server and client code

Web Developer | Daily Bruin
SEPTEMBER 2016 – APRIL 2017
‣ Transformed research and journalism into informative pages viewed by thousands/day
‣ Designed interactive map elements to allow users to virtually explore UCLA's campus
‣ Implemented lazy loading techniques to dynamically call APIs when data is requested

PROJECTS

Pocket Change | Personal Finance App [iOS]
https://github.com/nwtsai/PocketChange

‣ Constructed an iOS app with Swift 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 real-time earthquake data, plotting only the earthquakes at the specified location, magnitude range, or time frame on an interactive map

SKILLS

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

Relevant Coursework
CS 180 | Algorithms and Complexity
CS 152 | Design of Digital Systems
CS 146 | Machine Learning
CS 130 | Software Engineering
CS 117 | Computer Networks
CS 111 | Operating System Principles

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

Libraries | Frameworks
Angular, React, Node, jQuery, Lodash, WebGL, Handlebars, Bootstrap, Materialize

Markup Languages
XML, HTML

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
- Winter 2017
- Spring 2017
- Fall 2017
- Winter 2018
- Spring 2018

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