# KHOI NGUYEN

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#### **EDUCATION**

#### UNIVERSITY OF CALIFORNIA LOS ANGELES

Los Angeles, CA

B.S. Computer Science

September 2017 – June 2021

**GPA:** 3.4

- Relevant Courses: Algorithms and Complexity, Data Structures and Algorithms, Database Systems, Operating Systems, Computer Network Fundamentals, Automata Theory, Computer Architecture, Programming Languages, Computer Vision, Computer Graphics
- Organizations: Association of Computing Machinery, Creative Labs, Theta Tau Engineering Fraternity

#### **WORK EXPERIENCE**

LOGOS NEWS, LLC

Los Angeles, CA

Software Developer Intern Led redesign and implementation of the Profile feature through Angular with Firebase and HTML.

Revamped subscriptions and author suggestions to handle mobile responsiveness through CSS FlexBox and Material modules.

LEIDOS

Software Engineer Intern

San Diego, CA *June* 2019 – *September* 2019

*June* 2020 – *September* 2020

- Created an embedded system that collects data from magnetic, acoustic, and GPS sensors to determine orientation of the system.
- Streamlined data collection speed by creating interrupt-driven routines for multiple analyzed data to ensure synchronization of each sensor. Incorporated logging to an SD card by utilizing FatFS library to consolidate data for analysis.

#### UCLA STUDENT MEDIA

Los Angeles, CA

Web Developer Intern

January 2019 – Present

Improved company workflow by creating internal websites with various functionalities such as time sheets and a job application website using Firebase, Express, Angular and Node to handle frontend and backend development.

## NOTABLE PROJECTS

**CAPITALIST HINGE** React / Firebase RTDB

- Created an application that helps users intuitively connect with recruiters for future careers by swiping on people with similar interests and designed the database schema to increase efficiency of queries.
- Designed overall user interface using Material UI to allow users to easily navigate and understand the application

SPOTIFY.RANDOM React / Three.JS

- Developed an application using React to help users discover new music, by utilizing the Spotify API to query for songs based on parameters such as liveness, danceability, and energy.
- Collaborated with graphic designers to create 3D animals in Blender that dance to the beat of the discovered songs through Three.JS.

SCENE RECOGNITION Python / OpenCV

- Constructed an image recognition program that builds a set of visual recognition systems and classifies images in different categories through OpenCV, Scikit-learn, and Numpy libraries.
- Increased accuracy to above 50% by implementing Bag-Of-Words recognition system with SIFT, SURF, and ORB feature detections and SVM classification system.

**SCALAR** Swift

- Designed an iOS application that utilizes Apple's 3D Touch as a scale and converts detected force to grams, measuring up to 385
- Implemented Navigation Views and segues to manage a hierarchy of views within the application.

### **RELEVANT SKILLS**

- Languages/Technologies: C++, C, Python, Java, JavaScript, Angular, React, HTML/CSS, SQL, Linux, TypeScript, Git, OpenGL, Three.js, MongoDB, Swift, PHP
- Awards: Eagle Scout Rank (2015)