# 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*                                            *June 2020 – September 2020*

- 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**                                                                    **San Diego, CA**
*Software Engineer Intern*                                             *June 2019 – September 2019*

- 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 – June 2021*

- 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 grams.
- 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)