# Miles Kang

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# UNIVERSITY OF CALIFORNIA, LOS ANGELES Computer Science, B.S.

## Class of 2022 GPA: 3.81

#### Coursework:

- Data Structures & Algorithms
- Computer Organization
- Discrete Structures

- Operating Systems
- Computer Graphics
- Software Construction Lab
- Abstract Linear Algebra
- Applied Numerical Methods
- Algorithms/Complexity (IP)

## **Skills and Platforms:**

- **❖ Languages:** Python, C++, C, Javascript, PHP, HTML/CSS/SASS.
- ❖ Libraries/Frameworks: React, Node.js, Express.js, MongoDB, MySQL, Jest, Enzyme, Webpack.
  - Working knowledge of Angular, Vue, Django, Flask.
- ❖ Tools/Workflows: Git, Docker, Scrum/Agile, Jira, Trello, Linux/Unix.

### **EXPERIENCE**

## Software Engineering Intern | UCLA CCLE

April 2020 - September 2020

Develop full-stack LTI tools to integrate into Moodle/Canvas (used by over 35,000 students/faculty) using **Node, React, Express, and MongoDB**.

- Build a user-friendly frontend with React and Instructure UI (frontend framework).
- Write RESTful APIs to send/retrieve user and course data between client and MongoDB.
- Write Jest/Enzyme unit tests for airtight functionality.

Contribute frontend and backend features for UCLA's CCLE Moodle server. (PHP, Javascript, MariaDB)

Use **Git** and **Jira** for collaboration and code review, **Docker** for local environment.

## Web Developer | ACM Teach LA @ UCLA

Sept. 2019 - Present

Develop web education tools for students at local Title I schools.

Contribute to our online code editor (**React, Express, Firebase**): editor.uclaacm.com

Create interactive single-page modules for ACM Al's machine learning course.

- Incorporate Javascript libraries such as FunctionPlot (d3.js), math.js, and anime.js.
- Beautify frontend with Bulma CSS framework.

Provide mentorship for onboarding members.

## **PROJECTS**

#### Interactive Shell

Wrote a script in **C** to send client's keyboard commands to a server and return the output from a specified shell program (i.e. Bash).

Experimented with polled I/O, forking, data compression, and inter-process communication.

## **Record Player Simulator**

JS, WebGL

Designed an in-browser 3-D interactive record player / shooting game with **Javascript**.

Implemented animations, collision logic, gravity, and more with a **WebGL** framework.

#### Personal Portfolio

React, Node

Created a **React** app to showcase projects and involvements:

kilometerskang.github.io/me

Styled using **SASS**.

#### **HONORS**

## **Upsilon Pi Epsilon | CS Honor Society**

Inducted Fall 2019.

## AIME | American Inv. Math Exam

Top 2.5% scorer on AMC 10 (2017), top 5% on AMC 12 (2018).

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