Miles Kang

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EDUCATION

University of California, Los Angeles (UCLA) **Expected June 2022**
Computer Science, B.S. / **GPA: 3.81**

- **Relevant Coursework:** Data Structures & Algorithms, Computer Organization, Discrete Structures, Operating Systems, Computer Graphics, Software Construction Lab, Abstract Linear Algebra, Applied Numerical Methods, Logic Design of Digital Systems, Algorithms and Complexity
- **Honors:** Upsilon Pi Epsilon (CS Honor Society @ UCLA), American Invitational Math Exam (AIME) Qualifier

EXPERIENCE

Software Engineering Intern | *UCLA Tech*
April 2020 - September 2020   *ccle.ucla.edu | github.com/ucla/lti-library-resources*

Developed new full-stack LTI web applications to integrate into CCLE, the shared collaboration and learning environment used by over 50,000 UCLA students/faculty.

- Built user-friendly UI components and RESTful APIs using **Node.js, React.js, Express.js, and MongoDB**.
- Utilized UCLA's Registrar API to query for course and user details and update the local database.
- Unit-tested for airtight functionality with **Jest/Enzyme**.

Fulfilled feature requests and patched bugs in CCLE's existing application, built with **PHP** and **mySQL**.

Employed **Agile/Scrum** methodologies.

Web Developer | *ACM Teach LA @ UCLA*
September 2019 - Present   *editor.uclaacm.com | uclaacm.github.io/getting-mean-about-error*

Develop web education tools to make computer science more accessible at local Title I schools in Los Angeles.

Contribute features to Teach LA's online code editor (**React.js, Express.js, Firebase**).

Create interactive **machine learning** lessons (topics include Linear/Logistic Regression, Mean Squared Error).

Implement animations, graphing, etc. with **Javascript** libraries such as FunctionPlot (d3.js), math.js, and anime.js, and beautify interface with Bulma (**HTML/CSS**).

PROJECTS

Interactive Shell | *C*   *github.com/kilometerskang/operating-systems*

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 | *Javascript, WebGL*   *github.com/kilometerskang/record-player-simulator*

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

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

Personal Portfolio | *React.js, Node.js*   *kilometerskang.github.io/me*

Created a **React** app to showcase projects and involvements and styled using **SASS**.

SKILLS

- **Languages:** Python, C++, C, Javascript (ES6), Typescript, PHP, Bash, HTML/CSS/SASS.
- **Libraries/Frameworks:** React.js, Node.js, Express.js, MongoDB, Angular, MySQL, Jest, Enzyme, Webpack.
  - Working knowledge of Vue, Django, Flask.
- **Tools/Workflows:** Git, Docker, Scrum/Agile methodologies, Jira, Trello, Linux/Unix.
- **Interests**: jazz, music production, accessible education, web development.