

# Karen Kong

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## Skills

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C++, Java, Python, JavaScript

SQL, ANDROID STUDIO

## Work Experience

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**Software Engineering Intern**

FACEBOOK

*Summer 2018*

*Menlo Park, CA*

**Research Assistant**

EMBEDDED SYSTEMS LAB

*Jan. 2016 - Present*

*Riverside, CA*

- Design graph algorithms in C++ for microfluidic chip design automation.
- Constructed algorithms that expand placement from Chrobak-Payne Straight Line Routing to include areas of components, increasing area utilization by 23%.
- Programmed post-processor that converts corners on routes to diagonals, reducing route length by 16%. Coauthored ACM Journal paper.

**Facebook University for Engineering Intern**

FACEBOOK

*Summer 2017*

*Menlo Park, CA*

- Worked on Android app in Java for Facebook friends with opposing views to chat anonymously.
- Created push notifications and notification service to listen for new messages in the Firebase database.
- Added multimedia and camera support to messages in front end and back end.

**Intern**

ZYBOOKS

*Dec. 2016 - June 2017*

*Riverside, CA*

- Reviewed and revised Computer Science educational content for interactive online textbooks.
- Generated alternative text in XML to improve interactive activity accessibility.

**NSF REU**

EMBEDDED SYSTEMS LAB

*Summer 2016*

*Riverside, CA*

- Developed directed placement algorithm in C++, increasing area utilization by 24% and decreasing route length by 94%.
- Applied seam carving to post-processing, increasing area utilization by 33% and decreasing route length by 15%. Coauthored GLSVLSI paper.

## Projects

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**Clarity - Podcast Radio**

DESIGN PROJECT COURSE

*Java*

*Android*

Built podcast player app using the Listen Notes API. Implemented player controls, search, and notification service. Wrote REST API endpoints using Flask (Python microframework) and MySQL.

**Parkbnb - Parking Space Rentals**

1ST PLACE AT CUTIE HACK 2017

*Java*

*Android*

Created map based listings using the Google Maps API. Designed booking feature to remove listing from Firebase database after booking.

## Education

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**B.S. Computer Science**

UNIVERSITY OF CALIFORNIA, RIVERSIDE

*Expected June 2019*

*3.99 GPA*