

# Guancheng Li

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## EDUCATION

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### Rice University

Houston, TX

Master of Computer Science

Aug. 2022 – Present

Relevant courses: Web Development and Design, Algorithm, Computer System and Architecture

### JiLin University

Changchun, China

Bachelor of Computer Science and Technology

Aug. 2017 – June 2021

Relevant courses: Data Structure, Algorithm Design and Analysis, Computer Network, Operating System

GPA: 3.6/4.0 (88/100)

Class Rank: 2/36 College Rank: 5/100

## PROJECTS

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### Social Networking Web Application | *a social web application utilizing a distinct front-end and back-end architecture.*

- Utilized **React** to implement front-end including login page, main page and profile page, programming with **JavaScript**, **HTML**, **CSS** and supporting article search, pagination display
- Employed **Redux** to centralize the states and made maintenance more manageable
- Designed API in **Express.js** by using **Node.js** to handle requests, supporting login authorization, third-part authentication, account linking, registration, posting articles, commenting on articles, following and unfollowing friends, changing avatars
- Built database using **MongoDB** and cloud storage to manage user data
- Deployed** front-end on Surge and Deployed back-end on **Heroku**
- Possess comprehensive full-stack development knowledge and able to independently develop full-stack applications

### Cross-platform Social Application | *Flutter framework, Dart language*

- Developed a cross-platform application similar to Instagram using **Flutter** framework and **Dart** programming language that supports **iOS**, **Android**, and **web** platforms.
- Utilized **Firebase** cloud services as the backend to handle user authentication, Real-time database and Cloud Storage.
- Implemented complex features such as photo sharing, following and unfollowing, liking and commenting on posts, and search functionality.
- Designed and implemented user interfaces, managed the application's state, handled API data, and managed the application's lifecycle.
- Optimized user experience using complex animation effects and custom UI components.

## EXPERIENCE

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### Software Development and System Testing Intern

Sept 2021 – May 2022

Sensetime Company

Shanghai, China

- Designed a visual inspection system based on **OpenCV** for drivers to detect whether the driver's hands are off the steering wheel
- Used **C++** to develop the camera occlusion detection function judging by four logics: histogram, Hamming distance, average brightness, and connected domain
- Wrote test scripts in **Python** to automatically perform precision test tasks
- Designed test cases covering functional tests, accuracy test cases, and review test cases
- Proficient in using Git commands and common Linux commands

### Undergraduate Students Innovation Competition

May 2019 – Jul 2020

JiLin University

Changchun, China

- Used **C++** to implement **A\* pathfinding algorithm** and two-dimensional matrix to simulate the maps
- Obtained two computer software copyrights

## TECHNICAL SKILLS

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**Languages:** Java, JavaScript, TypeScript, C/C++, Python, Dart, HTML, CSS, SQL

**Back-end Development:** Node.js, Express, Spring-boot, MySQL, MongoDB, Git,

**Front-end Development:** React, Flutter, Redux, Jest, Bootstrap, Webpack