

# Allen Luo

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## EDUCATION:

### University of California, Irvine

September 2019 - June 2022 (Expected)

- B.S. Computer Science | GPA: 3.88
  - Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Programming in C++, Discrete Mathematics, Linear Algebra
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## SELECTED PROJECTS:

### Player Statistics Visualizer

September 2020

- Engineered React.js/Node.js web application to display League of Legends statistics and player analysis to help users improve performance
- Devised JavaScript script using Kayn library to fetch data from Riot Games' API and analyze player tendencies and efficiency
- Built REST API with Express.js for client/server communication and utilized Mongo Atlas to store user information

### Gitlet

July 2020

- Programmed version-control system that mimics features of the system Git, including add, commit, checkout, log, branch, and merge functions
- Deployed cryptographic hash function SHA-1 to uniquely identify internal objects and designed tree-like data structure to track commits; serialized data to store information over multiple runs

### Bear Maps

August 2020

- Developed web mapping application to visualize the shortest route between two points; added features such as location search, autocomplete, and dragging/zooming
  - Implemented k-d tree and min-heap priority queue paired with the A\* algorithm to store locations and determine the shortest path
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## RELEVANT EXPERIENCE:

### Backend Developer | Commit the Change

October 2020 - Present

- Implementing user authentication system with AWS Cognito to support registration, login, and account recovery functionality
- Designing and developing database with MongoDB to manage users, posts, and comments; creating REST API to store and request data

### Application Designer | Project WeHOPE

June 2019 - August 2019

- Deployed Kotlin Android application to track the location of the organization's shower trucks throughout the day
  - Accessed information from the trucks' schedule with Google Calendar API and integrated Google Maps into app to display directions
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## LEADERSHIP:

### Undergraduate Learning Assistant | UCI ICS

September 2020 - Present

- Host biweekly tutoring sessions in C++ course to support students on lab/project assignments and enrich them with course material and programming concepts

### Instructor | StreetCode Academy

June 2019 - August 2019

- Taught Scratch and basic computer science principles by holding weekly lectures and fostered young students' interest in programming
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## SKILLS:

**Programming Languages:** Python, Java, C++, JavaScript, CSS, HTML

**Technologies and Frameworks:** Node.js, React.js, Express.js, Git, MongoDB