Tianrui Chen

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Education

- 2015-2019– **University of California, Berkeley**
- Sophomore pursuing **B.A**. in **Computer Science** (Junior Standing)
- **GPA:** 3.9

Skills

- **Programming** – Java, Swift, Python, Javascript, C#
- **Libraries/Platforms** – Node.js, Express, Socket.io, Flask
- **Markup** – HTML, CSS, Latex
- **Databases** – MongoDB, SQL
- **IDE/Software** – Unity, Xcode, Android Studio, Photoshop
- **Other** – Firebase, ElasticSearch

Experience

2016 – Mobile Development Intern at **EmKite Inc.**

- Developed prototype of EmKite iOS app, a streamlined platform for connecting local gig-type job seekers to hirers.
- Created frontend UI in Swift, implemented Firebase API, designed database structure, implemented ElasticSearch on AWS for search functionality with geo-location, implemented chat system, profile system, and availability and booking system.

2015 – Member of **Mobile Developers of Berkeley**

- Developed mobile app NoteHub, an Android note sharing platform for Berkeley students.
- Implemented sending and retrieving note data from Parse server and camera functionality in Java.

2015 – Third place team at **"Hack Into It" Hack-a-thon**

- Created a server and database using Node.js and MongoDB to analyze tax data.

Projects

Multiblox - csua.berkeley.edu:3000

- Browser based multiplayer cooperative Tetris game. Created Node.js/Socket.io server, implemented communications from webpage frontend, implemented partial JavaScript backend modeling of game state, implemented partial JavaScript game mechanics, all rendering of graphics in frontend with HTML canvas, drew all art assets in Photoshop.

Journey

- Road trip planning website that provides hotel and restaurant options along a given start and end location based on how far one wishes to drive each day. Created Node.js backend, partial implementation of HERE API, and HTML/CSS.

Derailed! - https://play.google.com/store/apps/details?id=com.mindacceleration.derailed&hl=en

- 2D Android and IOS infinite runner game on the Google Play Stores involving placing tracks in front of a moving train using Unity game engine. Responsible for C# code and most artwork.

BearMaps

- School project. Browser based map of Berkeley, like Google Maps, with zooming in of areas and finding shortest path between two locations. Implemented quad-tree data structure for efficient access of map image pieces and weighted graph data structure and A* path finding algorithm for finding the shortest path in Java.