KEVIN LIN

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EDUCATION

University of California, Berkeley
Bachelor of Science in Electrical Engineering and Computer Science (EECS) May 2020
Awards: Cal Alumni Association - Leadership Award (2016), President's Volunteer Service Award (2015) Major GPA: 3.53
Coursework: Data Structures, Computer Architecture/Machine Structures, Structure and Interpretation of Computer Programs, Designing Information Devices and Systems, Discrete Mathematics and Probability Theory, Efficient Algorithms and Intractable Problems (*ongoing*), Artificial Intelligence (*ongoing*), Principles and Techniques of Data Science (*ongoing*), Certificate in Entrepreneurship and Technology (*ongoing*)

SKILLS

Languages: Java, Python, C, HTML/CSS, SQL, Assembly (RISC-V), Scheme (LISP)
Technologies and Libraries: Jupyter, NumPy, Expo, Git, IntelliJ, Eclipse, Mac OS, Windows

PROJECTS

Berkel-pee Oct 2017
- Created a mobile app of a bathroom rating system for UC Berkeley campus bathrooms using React Native and Expo at Cal Hacks
- Implemented a FlatList data structure to store bathroom location data containing building name and floor number, parsed from online
- Utilized the cloud-hosted database feature of Firebase to record the cleanliness rating count of each bathroom, inputted by each user

Voice Controlled Car May 2017
- Designed the circuit board and wrote code for a voice controlled mini-car that uses principle component analysis (PCA) and K-Means classification to associate 4 user-chosen words with 4 commands: move straight slow, move straight fast, turn right, turn left
- Utilized a closed-loop control system to provide a data-intake feedback loop to ensure the car maintains straightness when driving

Bear Maps Apr 2017
- Built the backend of a web server hosted on AWS that supports user scroll, zoom, and search for destinations on a map of Berkeley
- Designed a quadtree data structure to generate the appropriate map image based on the user's zoom through rastering
- Implemented the A* algorithm to find the shortest path between two selected locations, which contain real-world mapping data

Database Mar 2017
- Built a relational database management system (DBMS) and a domain specific language (DSL) similar to SQL that Regex parses user-inputted commands such as create, load, store, drop, insert into, select, and join to manage a database of tables
- Developed table, column, row, and value classes that capitalized on OOP and implemented the Cartesian join algorithm from scratch

EXPERIENCE

CS 61A/61B Course Staff, Academic Intern Jan 2017 – Present
- Clarify coding concepts and explain lab questions to students taking UC Berkeley's introductory computer science courses, covering content such as higher-order functions, environment diagrams, recursion, trees, objects, inheritance, Scheme, SQL, and data structures
- Part of a team that helps over 60 students at a time with high question demand during office hours and homework parties

Pioneers in Engineering, Web Developer Sep 2016 – Dec 2016
- Updated and developed new features, such as a clickable timeline with competition info, for the club's website: pioneers.berkeley.edu
- Planned and ran an annual cost-efficient robotics competition for over 30 local underprivileged Bay Area high schools

Abitalk, Mobile Application Proofreader Jul 2015 – Aug 2015
- Compiled and edited word definitions digitally for educational mobile apps, such as vocabulary decks and games for 1st to 6th graders
- Kept communication with CEO through weekly emails to check progress and maintain work efficiency

LEADERSHIP

DiversaTech: UC Berkeley's Technology Consulting Group, Consultant Sep 2017 – Present
- Conduct market research to create K-12 student and post-graduation industry profiles for the United Kingdom, Canada, and Australia to help Chegg expand their on-demand tutoring services internationally against the threat of existing competitors
- Prototyped a user-friendly question and answer forum, a millennial-focused social media campaign, and a points-based rewards program with a detailed implementation timeline to increase consumer loyalty and awareness in a new market space

Evergreen Engineering and Computer Science Society (EECSS), Founder and President Sep 2015 – May 2016
- Taught Python computer programming, through guided concept-driven mini-projects designed by myself, and electronic devices building, such as portable phone chargers, to over 30 middle and high school kids at my local library
- Arranged community-wide speaking events from guests of top Bay Area companies and universities, such as Google and Stanford, which attracted over 50 attendees, with the purpose of sharing professional experiences and inspiring students to pursue engineering
- Self-studied HTML/CSS online and applied knowledge to design www.eecss.github.io as a way to advertise and accept class sign-ups