Charles Zhang

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EDUCATION

University of California, Los Angeles (UCLA)   **Sep 2019 – Jun 2023**
B.S., Computer Science   *Los Angeles, CA*
- 3.92/4.0 GPA
- Awards: 2x Dean's Honors
- Organizations: ACM, Upsilon Pi Epsilon, Tau Beta Pi
- Courses: Multivariable Calculus, Linear Algebra, Differential Equations, Discrete Mathematics, Data Structures, Algorithms, Computer Architecture, Software Construction, Programming Languages, Operating Systems, Data Management Systems, Digital Design, Formal Language and Automata

WORK EXPERIENCE

BruinShack   **Feb 2021 – Present**
Full-Stack Development Intern   *Los Angeles, CA*
- Designed and developed a responsive review system using Vue.js and Node.js to facilitate ratings and reviews from approximately 2,000 weekly active users looking for apartments in the Westwood area.
- Led a redesign of multiple static pages and the apartment manager portal in order to improve brand visibility and quality-of-life for users.
- Collaborating with UI/UX designers on user surveys to maximize the user experience.

The Amplification Project   **May 2021 – Sep 2021**
Front-End Developer   *Los Angeles, CA*
- Implemented a responsive design of the organization's main website using Vue while coordinating with a backend developer to raise awareness of forced migration through preservation of related art and activism.

Upsilon Epsilon Pi   **Mar 2019 – Jan 2020**
Volunteer Tutor   *Los Angeles, CA*
- Offered free tutoring for various courses in UCLA's computer science curriculum.
- Wrote and produced academic videos aimed to assist students with challenging concepts.

PROJECTS

DARS++ – (github.com/czhangy/darsplusplus)
Full-Stack Development
- Developed a full-stack web application using the MEVN stack to allow users to engage in course planning and attempts to optimize upcoming schedules using topological sorting.
- Honed a user-friendly, responsive front-end using Vue.js, while developing a simple RESTful API using Node.js/Express.js to practice database management through MongoDB Atlas.

BruinByte – (github.com/czhangy/bruinbyte)
Full-Stack Development
- Created and deployed a full-stack web application using React.js, designed to act as a local food review hub for UCLA students, based on the FERN stack.
- Integrated an authentication system and a dynamic ratings/comments system using Google Firebase.
- Learned various methods for communicating effectively within a team and building team chemistry.

Splekbot – (https://aaisara12.itch.io/splekbot)

Game Developer
- Led level design team tasked with modelling 3D assets and levels using Unity ProBuilder to emphasize core gameplay mechanics, operating using Agile methodologies.

Personal Website – (https://czhangy.io)
Front-End Development
- Developed and designed a personal portfolio, focusing on responsive design and interactivity.

KenKen Solver
Software Development
- Used logic programming principles and the Prolog finite domain solver to create a program that solves traditional KenKen puzzles.
- Performed timed comparisons with a simplified version of the KenKen solver implemented using only core predicates to examine the efficiency of finite domain

Kontagion
Software Development
- Developed an arcade-style game in C++ using object-oriented design principles

EXTRACURRICULAR ACTIVITIES

Upsilon Epsilon Pi
Volunteer Tutor
- Offered free tutoring for various courses in UCLA's computer science curriculum.
- Wrote and produced academic videos aimed to assist students with challenging concepts.

Design, Build, Fly
CAD Team Member
- Used AutoCAD to design various parts of a small aircraft for use in the Design, Build, Fly competition (cancelled due to COVID-19)

PROFICIENCIES

- **Skills:** Front-end frameworks | Object-oriented programming | Agile methodologies | RESTful APIs | Web design | Data structures & algorithms | Leadership | Interpersonal communication
- **Languages:** C++ | JavaScript | HTML/CSS | Python
- **Tools:** Vue | React | Git | Node/Express | MongoDB | Linux | Unity | Microsoft Office | WordPress