Eric Tang
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Education

University of California, Los Angeles   September 2020-May 2023
Bachelor of Science in Computer Science and Engineering   GPA: 3.98/4.00
- IEEE-Eta Kappa Nu Membership Chair: organize the orientation and induction ceremony for 50+ members
- Enlisted in Dean's Honors for all terms, member of the Honor Societies UPE and ALD|PES
- Relevant coursework: Data structures & Algorithms, Object Oriented Programming, Assembly Languages, Parallel Programming, Linear Algebra, Multivariable Calculus, Electromagnetism

Professional Experience

Biomedical Imaging Research Institute, Cedars-Sinai Medical Center   Los Angeles, California
Research Intern   June 2021-Present
- Design prostate shimming coils to correct the off-resonance caused by rectal air in MRI scanners
- Implement genetic algorithm, data augmentation, and parallel programming to optimize coil position
- Engineer experiment apparatus for use on volunteer and pig scans at the Research Imaging Core, Davis Building
- Improve prostate field homogeneity by 35% for easier identification of prostate cancer
- Utilize deep learning to segment twelve organs with 96% success rate

Cedars-Sinai Medical Center   Remote Work
Research Apprentice   May 2020-March 2021
- Simulated MRI's B0 magnetic field distortion from whole-body CT images to speed up experiments
- Utilized Light Fidelity (LiFi) between IR LEDs and photodiodes to improve patient communication during MRI scans
- Synchronized data on cloud for easier access and modification

Projects

StudyRadar – *Full Stack Developer*   September 2021-Present
- Self-developed web application that allows students to create and join study groups based on major and school year
- Create Figma wireframes and prototypes of 10+ webpages and incorporate 5+ functions
- Implement 15 components utilizing React and Node.js including login/register, scrolling feed, agenda features
- Utilize Insomnia as an API endpoint tester and PostgreSQL to store 50+ user and study group information

GhostRacer – *Game Developer*   January 2021-March 2021
- Created video game utilized C++ object-oriented programming and graphical interface XQuartz
- Developed data structures and functions to implement multilevel hierarchy between characters
- Refined the code with various C++ STL containers and functions for faster rendering

IEEE Micromouse (autonomous maze-solving robot) – *Hardware & Software Developer*   September 2020-May 2021
- Wrote C code in CubeIDE that monitored and controlled motors, incorporated 3 photodiodes/IR sensors for automation
- Designed schematics and configured IR breakout PCB utilizing Eagle
- Implemented flood fill algorithm using C to solve mazes efficiently
- Won the Mouse Competition and reached #4 on leaderboard

Designer's Portfolio – *Front-End Developer*   April 2021
- Implemented responsive webpages to display texts and images using HTML5 and CSS with Bootstrap
- Built interactive page transitions through CSS and DOM manipulation in JavaScript
- Defined and applied specific element animations and movements with CSS @keyframes

Skills

- Software/tools: Linux, Git, Eagle, Autodesk Inventor, SolidWorks, Adafruit, MICE toolkit
- Programming Languages: C, C++, Java, Python, MATLAB, HTML, CSS, JavaScript
- Languages: Mandarin (native proficiency), Spanish (elementary)