Jian Qin (Ray)

Passionate Software & Mechatronics Engineer

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Education

University of California San Diego — Sep 2019 – Jun 2023, San Diego, CA
- *Bachelor of Science*: Mathematics – Computer Science
- *Bachelor of Science*: Mechanical Engineering, Specialized in Controls & Robotics
- Double Major – GPA: 3.9+/4

San Domenico School — Sep 2015 – Jun 2019, San Anselmo, CA
- Varsity Track & Field Captain – Junior Class President
- Veritas Award, Varsity Track & Field MVP
- Graduated with Highest Honor, GPA: 3.9+/4

Work Experience

Data Analyst, *Qualcomm Institute* — Dec 2020 – Jun 2021, San Diego, CA
- Analyze city open data on small businesses using python libraries.
- Design modern solutions and analyze interviews with business owners
- Develop prototype and technical support to enhance business productivity.

Instructional Assistant, *UC San Diego* — Dec 2020 – Present, San Diego, CA
- Tutor students during office hours on Solid Mechanics.
- Assist professor preparing course and exam material. Conduct oral exams.
- Improve students' performance by evaluating student's paper, assignment, and designs.

Projects & Experience

Personal Website ➔ https://qinjian.xyz — Strongly Recommend
- Designed personal website with HTML, CSS, and JavaScript
- Details on projects, experience, and community service.
- Blog section contains original articles on technology, culture, and society.

Lightsaber Robot – Engineering Project — San Diego, CA
- Designed and Manufactured a Competition Robot
- Accomplish tasks including moving, rotating, and stacking objects with precision
- Developed the CAD design; Applied theoretical knowledge and machine shop skills

Mars Landing Simulation, Engineering Project — San Diego, CA
- Simulated 6 different trajectories of capsules landing on Mars.
- Integrated parameters including mass, gravity, air drag, air density, thruster, etc.
- Presented data visualization including landing time, speed, and orbital period.

Thermostatic Mug, Engineering Project — San Diego, CA
- Led a team of engineers to design a mug that maintains a customized temperature.
- Integrated Arduino sensor, linear circuits, and python programming to achieve functionality.
- Prototyped in Fusion360, and 3D Printed components for final assembly.

Pendulum, Engineering Project — San Diego, CA
- Designed the pendulum body in AutoCAD and Autodesk Inventor
- Simulated the frequency and stress analysis in Inventor
- Assembled the pendulum using machine tools, laser cutting, band saws, etc.

Fitness Camp, Community Service — Beijing, China
- Managed fitness group events over 60 people from different age groups and backgrounds.
- Led discussions on nutrition, progressive overload, weight loss, and athletic performance.
- Helped numerous participants achieve their various goals, specifically

Prom 2k18, Event Planning — San Francisco, CA
- Led Prom Planning for the senior class as a tradition as the junior class president.
- Designed theme, contacted venue, organized fund raising, and recruited volunteers to help.
- Thanks to teamwork and many dedicated individuals, we had a successful Prom in 2018.

Skills

- ***Programming***: Java, Python, C++, SQL, C, HTML, CSS, JavaScript, React.js, Redux, Node.js, React Native, ARM, Electron, Bootstrap, TensorFlow, Pandas, Anaconda, GitHub, Docker.
- ***Engineering***: SolidWorks, ANSYS, AutoCAD, Inventor, Fusion360, Finite Element Analysis, MATLAB, GD&T, Arduino, Prototyping, Design of Machine Elements, Design of Experiment, 3D Printing, Machining, Laser Cut, Manufacturing, Circuits Design, Computational Fluid Dynamics, Solid Mechanics, Dynamics.
- ***Mathematics***: Probability & Statistical Model, Modern Applied Algebra, Enumerative Combinatorics, Numerical Method for Linear, Non-Linear & Differential Equations.
- ***Soft Skills***: Event Planning – Prom 2k18. Business – Foreign Investment Management. Initiative – Founded Fitness Camp. Public Speaking – Junior Class President.