

JINGWEN [BARRY] TAN

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[LinkedIn](#) | [Adobe Spark](#) | [GitHub](#)

EDUCATION

M.S., Artificial Intelligence

December 2023

San Jose State University

B.S., Mechanical Engineering; Minor in Computer Science

San Jose State University, GPA: 3.72

Relevant Courses: Mechatronics, Data Structure, OOD, Database, OS, Data Mining, Big Data with HPC, Fluid Mechanics, Heat Transfer, Circuit Analysis, Machine Learning, Vibration and Control

SKILLS

Software: SolidWorks, FEA, GD&T, Simulink, Adobe, Unity, AutoCAD TRACE, Excel

Programming: Java, Python, MATLAB, RASA, SQL, Tkinter, TensorFlow, HTML & CSS

Hands-on Tools: 3D Printing, Machining, Hand tools, Soldering, Prototyping

EXPERIENCE

Engineering Intern, Formfactor, Inc., Livermore

May 2022 - August 2022

- ◆ Designed and applied GD&T to **three** different adjustable fixtures and tools for probe card testing with SolidWorks, ANSYS, and 3D Printer
- ◆ Investigated and failure analyzed of interposers validation cycle through FEA and testing in a clean room
- ◆ Collaboratively developed and delivered **three** apps with MATLAB, Python and LabView for data automation that reduces the testing and processing time from hours to **30** seconds

Mechatronics Designer, Spartan Superway, San Jose

August 2020 - May 2021

- ◆ Designed **three** switching mechanisms for a smooth transition on Y-guideway junction with SolidWorks
- ◆ Programed switching arms to communicate with the IoT sensors for failsafe operation in Arduino
- ◆ Analyzed and upgraded **three** customized PCB to construct a control circuit for brushless outrunner motor

Data Analyst Intern, Genentech, Inc., South San Francisco

July 2019 - September 2019

- ◆ Collected over **4000** campus security alerts by communicating with various departments. Applied modeling, analysis, and visualization to transform the results into insights with Google Sheet.
- ◆ Discussed and investigated recommendation to reduced **30%** of false positive alarms by reassigning priority levels based on risks associated with each event in C-CURE 9000
- ◆ Reviewed and documented security management process in Visio, identified inefficiencies and redundancies, and recommended changes to simplify steps for **20%** time saving

PROJECTS ([SHOWCASE](#))

- ◆ **ASL Detector(Cont.):** Build a real-time sign language translator with data mining and computer vision
- ◆ **Self-Balanced robot:** Inspected and designed control system to build a self-balanced robot with Simulink
- ◆ **Aquarium Managing System:** Built an **9** entities aquarium database with MySQL, HTML and CSS.
- ◆ **AI Chatbot:** Created a RASA assistant that uses database and API to interact over **20** utterances
- ◆ **Hanging Hook:** Sketched and 3D printed **6**-parts assembly to hang skateboards in a backpack
- ◆ **HVAC System:** Designed duct system for a **60000** ft² office with AutoCAD and TRACE 700
- ◆ **OWC:** Built 9-parts wave energy harvesting system in SolidWorks and simulated with a scaled prototype
- ◆ **Dynamic Ship:** Assembled **20**-parts, crank-mechanism parts in SolidWorks to performs ship sailing
- ◆ **Manufacturing Simulation:** Implemented computer vision for articulated robots to perform bottle sealing
- ◆ **Balanced Maze:** Build an Arduino maze that challenges players with **5** electromechanical components
- ◆ **Daimler In-Car Coding Challenge:** Developed a voice-controlled, customized car assistant with Adobe