

# David A. Yun

DavidAYun.com | linkedin.com/in/davidayun

## EDUCATION

**The University of Texas at Austin**

**Class of 2020**

Bachelor of Science in **Mechanical Engineering**

Minor in **Mandarin Chinese**

## SKILLS

**Software:** Solidworks, Creo (Pro E), NX, Ansys, Keyshot, Inventor, AutoCAD, Fusion, Matlab, LabView, Python, C++

**Tools:** 3D printer, Arduino, Metal lathe, CNC machine, Vertical milling machine, Laser cutter, Soldering iron, Power tools

**Languages:** Native in **Spanish**, Intermediate in **Mandarin Chinese**

## EXPERIENCE

**Apple - iPhone Product Design Engineer | Cupertino, California**

**Spring 2022 - Present**

**Pump Studios - Mechanical Engineer | Austin, Texas**

**Spring 2021 - Spring 2022**

**Schlumberger - Mechanical Engineer Intern | Houston, Texas**

**Summer 2019**

- Redesigned (Creo) and prototyped a downhole tool component to reduce manufacturing costs by over 30%, saving up to \$390,000 per year
- Researched and tested particle retention alternatives to keep particles out of the tool
- Conducted FEA simulations (Ansys) of hydraulic lines to predict buckling and select optimal pipe diameters

**Kasita - Product Design Fellow | Austin, Texas**

**Summer 2018 - Winter 2018**

- Modeled (Solidworks) a total of 96 intricate electrical and plumbing components on Solidworks to be used on the complete assembly of a unit's 3D model
- Prototyped new actuation mechanisms for the redesign of the sofa/bed and stairs to increase ease of use
- Created engineering drawings of the electrical plan of the unit to be used in installation plans

**Texas Inventionworks - Student Technician | Austin, Texas**

**Fall 2018 - Spring 2020**

- Assisted students with operation of rapid prototyping to efficiently and effectively prototype their designs
- Assembled, prepared, and repaired machinery for optimal operation

## PROJECTS

**Golden Gate Bridge Replica - Personal Project**

**Fall 2015 - Present**

- Researched engineering drawings to model (Inventor) and 3D print the bridge as 74 individual pieces that interlock
- Designed the bridge to exhibit cable tension and imitate the structural properties of the real bridge
- Made the bridge intuitive to assemble and recorded assembly instructions to sell it on Etsy

**High-Resolution Tribometer for Soft Materials - Senior Design Project**

**Summer 2020**

- Collaborated with three other students to design a high-resolution microtribometer for use in a research laboratory
- Generated mathematical models of cantilever beams in bending to achieve the desired deflection, then conducted FEA simulations (Ansys) to validate and revise the design
- Designed components (Solidworks) for ease of manufacturing and assembly, resulting in a design 50% under budget, a savings of \$100,000 when compared to commercial alternatives

**Gamebit (gamebitboard.com) - Founder, Product Development**

**Fall 2017 - Fall 2020**

- Developed an automated chess board that allows a user to play against online opponents or AI in real time
- Conceptualized and built an embedded system consisting of a microcontroller, magnetic sensors, and stepper motors
- Wrote a program using C++ that interprets sensor signals and activates the motor

**Hyperloop Propulsion/Braking Test Sled - Guadalooop**

**Spring 2018**

- Lead the design and assembly of a test sled in a period of 12 hours to maximize testing time
- Constructed a sled that allowed a motorized wheel to run along a special track to obtain propulsion and braking data for the final Hyperloop pod used in national competition