

# Joshua A. Duarte

joshua\_duarte@berkeley.edu

joshuaduarte.com

(704) 960-5071



## Education

**University of California, Berkeley**, Berkeley, California

Graduation: May 2023

Master of Engineering in Mechanical Engineering, Concentration in Product Design

GPA: 3.861/4.0

**Texas A&M University**, College Station, Texas

Graduation: May 2022

Bachelor of Science in Mechanical Engineering

GPA: 3.594/4.0

## Professional Experience

**Boeing**, Seattle, Washington

May 2021 - August 2021

Boeing Test & Evaluation Flight Test Design/Build Intern

- Responsible for the design, prototypes, manufacturing, and installation of foreign object debris shields within 4 777X aircrafts
- Developed parts, drawings, and assemblies using 3D modeling software CATIA V5, Enovia, and IVT for alignment within the aircrafts
- Worked closely with lead design engineers in overseeing the project management for the installation of essential test equipment designed to manipulate the center of gravity and electrical load throughout an aircraft during flight testing

**ExxonMobil**, Houston, Texas

June 2020 - August 2020

UIS Wells Digital Innovation & Automation Intern

- Met and discussed with numerous Well Engineers to design a seamless user interface and data collection using Nintex Forms/Workflows, JavaScript, jQuery, HTML, CSS, along with VBA within Excel
- Enhanced and developed a SharePoint tool that captures and distributes learnings found during the Well construction process
- Constructed a repository that held drilling and onboarding information that benefited current and future ExxonMobil Well Interns

**Northrop Grumman**, Palmdale, California

May 2019 - August 2019

Technical College Intern, Aerospace Systems, Top-Secret Clearance

- Assembled and tested electronic, mechanical, and electromechanical systems to ensure consistency and quality
- Constructed models, assemblies, and engineering drawings using 3D modeling and design software, CATIA V5, to fabricate solutions
- Facilitated the development of a Subsystem Design and Analysis Lab at the request of sector leadership

## Projects

**Blue Goji: Omni-Directional Treadmill**, Berkeley, California

August 2022 - May 2023

Project Manager, Product Designer

- Enabled users to physically move in any direction within virtual reality through the creation of a functional omni-directional treadmill
- Improved the industrial design, real-time controls, and overall efficiency for manufacturability and a greater user experience
- Created and managed comprehensive project plans, including timelines, budgets, and resource allocation for a team of 10 engineers

**Gambit**, College Station, Texas

January 2021 - March 2023

Creator, Product Designer

- Organized a team that would be responsible for the development of an automated intelligent chessboard using Arduino and Python
- Performed market research by analyzing surveys and design methods to uncover customer needs to ensure a desirable product
- Persistently applying mechanical, electrical, and computer software knowledge to design, manufacture, and assemble the system
- Developed software to efficiently orchestrate the sensing, movement, and chess engine subsystems using C programming

**Gimbal**, Berkeley, California

February 2023 - March 2023

Creator, Product Designer

- Independently designed and developed a 3-axis sliding gimbal for a webcam by incorporating user-centric design principles, product protection, and manufacturing considerations while using only readily available materials and tools
- Led end-to-end design process, from conceptualization, 3D modeling, prototyping, and analysis, to final model within 10-day timeframe

## Leadership Experience

**University of California, Berkeley**, Berkeley, California

September 2022 - May 2023

Master Of Engineering Student Ambassador

- Engaged with prospective students by representing the Master of Engineering program with an aim to recruit and inform
- Oversaw the creation and execution of events for the 2022-2023 cohort to establish a greater sense of community and connection

**Society of Hispanic Professional Engineers**, College Station, Texas

May 2021 - May 2022

President

- Led 8 board members to continuously impact members through professional, academic, technical, and social development which resulted in more than 400 members registered with the organization, a 74.7% increase in members from the previous year
- Coordinated a 36.2% increase in corporate sponsorship and a 181% increase in general event attendance from recorded metrics through new initiatives tailored for professional, academic, social, and technical development

## Skills

- CATIA V5, Autodesk (Inventor and AutoCAD), SolidWorks, Python, HTML, CSS, JavaScript, C++, Bilingual (English/Spanish)