

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: 3.85/4.0

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 - Present

Product Designer

- Aiming to enable users to physically move in any direction within virtual reality through a functional omni-directional treadmill
- Improving the industrial design, real-time controls, and overall efficiency for substantial manufacturability and a greater user experience
- Created and manage comprehensive project plans, including timelines, budgets, and resource allocation for effective project completion

Gambit, College Station, Texas

January 2021 - Present

Founder, Project Lead

- 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

BUTLR, Berkeley, California

September 2022 - Present

Founder

- Designing a planner that incorporates machine learning to analyze past behavior and suggest the most efficient schedule to effectively manage tasks, goals, ambitions to ultimately enhance productivity and success
- Conducting user and market research to design and produce an effective, attractive, and human centered product

Leadership Experience

University of California, Berkeley, Berkeley, California

Master Of Engineering Student Ambassador

September 2022 - Present

- Engage with prospective students by representing the Master of Engineering program with an aim to recruit and inform
- Oversee 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

President

May 2021 - May 2022

- 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

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