Joshua A. Duarte

Joshua.duarte151@gmail.com | joshuaduarte.com | (704) 960-5071

Education

University of California, Berkeley, Berkeley, California — Graduation: May 2023
Master of Engineering in Mechanical Engineering — 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

- Developed and enhanced a SharePoint tool that captured and distributed learnings found during the Well construction process
- 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
- 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

- Improved the industrial design and overall efficiency of an Omni-Directional treadmill by enhancing manufacturability and assembly
- Utilized load cells, accelerometers, and computer vision to effectively track and manipulate the users position, orientation, and speed
- Created and managed comprehensive project plans, including timelines, budgets, BOMs, and resource allocation for a team of 10

Gambit, College Station, Texas — January 2021 - May 2023

- Persistently applied mechanical, electrical, and computer software knowledge to design and manufacture an intelligent chessboard
- Developed algorithms to efficiently orchestrate the sensing, motion, and chess engine subsystems using C++ programming
- Performed market research by analyzing surveys and design methods to uncover customer needs to ensure a desirable product

Gimbal, Berkeley, California — February 2023 - March 2023

- 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 7-day timeframe

Butlr, Berkeley, California — June 2023 - Present

- Creating a user-friendly AI powered calendar with ReactJS that incorporates a chat UI using Firebase and OpenAI APIs to actively learn users' habits and create personalized planning and goal setting solutions while actively tracking metrics for continuous improvement
- Consistently conducting user research to adjust the model and UX to allow for the maximization of productivity tailored to the users

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
- Oversaw 2 committees that were focused on improving the efficiency of event creation and execution across the organization

Skills

- CAD (SolidWorks/CATIA V5), FEA, GD&T, Data Analysis, Python, JavaScript, C++, HTML5/CSS, Bilingual (English/Spanish)