

# Joshua A. Duarte

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## Education

**Texas A&M University**, College Station, Texas  
Bachelor of Science in Mechanical Engineering

Graduation: May 2022  
GPR: 3.534/4.0

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## Professional Experience

**Boeing**, Seattle, Washington

May 2021 - August 2021

Boeing Test & Evaluation Flight Test Design/Build Intern

- Responsible for the design, prototyping, manufacturing, and installation of foreign object debris shields within 4 777X aircrafts
- Developed numerous parts and assemblies using CATIA V5, Enovia, and IVT for proper tolerance 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 the 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 3D models, assemblies, and engineering drawings using CATIA V5 to fabricate solutions
- Facilitated the development of a Subsystem Design and Analysis Lab at the request of sector leadership

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## Projects

**Gambit**, College Station, Texas

January 2021 - Present

Founder, Hardware Lead

- Organized a team that would be responsible for the development of an automated chess set using an Arduino and a Raspberry Pi
- Performed and analyzed surveys and design methods to discover customer needs and requirements 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**, College Station, Texas

December 2021 - Present

- Designed a planner to allow users to easily input tasks, events, and habits to then export to a variety of calendar applications
- Attempting to incorporate machine learning within Python programming to effectively plan tasks and habits

**TAMUhack**, College Station, Texas

UI Design Lead, PwC Challenge Winners

February 2020

- Collaborated with 2 other students in creating a project that provided resources to low-income students within a 24-hour period
- Designed and implemented the user interface of an iOS application using Swift on the XCode platform
- Awarded 1<sup>st</sup> place by presenting a real time demonstration revealing the capabilities of the application

Design Lead, Best First Time Hackers, CBRE Challenge Winners

January 2019

- Led project management, design, and the fabrication of the working prototype throughout the 24-hour competition
- Responsible for the delivery of the sales pitch that resulted in a 1<sup>st</sup> place finish within two separate challenges
- Incorporated C programming to manipulate a Qualcomm DragonBoard to align with the project design

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## Leadership Experience

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

President

May 2021 - Present

- Elected to serve as the President of a 340+ member organization for the 2021-2022 academic year
- Oversee and collaborate with 8 executive board members along with the regional and national team to ensure chapter progression
- Responsible for ensuring member engagement and retention through numerous weekly events and corporate sponsorships
- Coordinated a 77% increase in members, 53% increase in sponsorship donations, and a 181% increase in general event attendance

Director of Technical Affairs

May 2020 - May 2021

- Established a committee of 47 members, a 571% increase from the previous years, that assisted in the organization's website development duties, point automation, and application development projects
- Organized several initiatives that provided members with the opportunity to learn web development, JavaScript, and team skills

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## Skills

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