# Joseph Coyotl

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#### **EDUCATION**

# **Bachelor of Science in Aerospace Engineering**

May 2027

University of Florida

## **Engineering FLAME Program**

May 2023

Florida International University

Honors: Top 10% Class of 2023 (Hialeah Gardens Senior High)

#### **EXPERIENCE**

Lab Technician June 2022 - August 2022

PATHS-UP Engineering Research Center

Miami, FL

- Performed tensile testing on tubes to highlight mechanical properties, such as, yield point and elastic modulus
- Formulated liquid solutions with similar optical properties as human skin and blood, and followed proper sanitization procedures post and pre-data collection
- Operated pressure servo controller and pressure monitor to obtain the amplitude over time from a PPG sensor when the blood solution flowed through the artery simulator

Website Manager June 2021- July 2021

Cool Stuff & Accessories

Miami, FL

- Executed risk management techniques to increase overall term frequency of products' names, and descriptions by 30% by utilizing Google Trend's item search bank.
- Uploaded over 250 furniture products onto the website and Excel with a 100% accurate self-calculated tax pricing

#### LEADERSHIP AND PROFESSIONAL DEVELOPMENT

### **XTREME Engineering Director**

September 2023 – Present

Society of Hispanic Engineers

University of Florida, FL

- Interacted with the VP of technology for meetings, event objectives, and methods of event branding, with social media and Adobe Photoshop
- Catalogued materials to ensure technological supplies are working correctly for any planned events

#### **Manufacturing Lead**

September 2023 – Present

VEX U Team

University of Florida, FL

- Operated drill press, vertical bandsaws, and angular grinders when going through the manufacturing process for altered robotic pieces, and custom CAD modeled systems.
- Utilized critical thinking skills to design and 3D print customized components to effectively include angular pneumatic and motorized systems onto a robot

Robotics Captain September 2022 – May 2023

**VEX Robotics** 

High School Hialeah Gardens High, FL

- Tracked and analyzed competition robots and team performance to improve future strategy
- Implemented lean principles to make team work effectively as a whole and as individuals to maximize time

#### **TSA Competition Project**

September 2021 – February 2022

High School Hialeah Gardens High, FL

Animatronic for Children's Hospital

- Constructed the design and manufacturing of electronic and welded components of the animatronic
- Structured the design process and created charts to compare cost-effectiveness of the animatronic while also quickly learning simple child psychology to improve the project's color scheme, movement speed, and overall presence to better fit a children's hospital.
- Fabricated circuit boards and programmed the system to play a 4-variable color Simon Says game

#### **SKILLS**

**Project Applications:** SolidWorks, Arduino, Soldering, Welding, Java, Lean Six Sigma Team Cost & Flow Experience **Certifications:** RECF Robotics, RECF Aerospace Pre-Engineering, Microsoft Word, PowerPoint, and Excel Specialist **Languages:** English (Native), Spanish