JOSADAC OROZCO RIVERA

josadac.orozcorivera@gmail.com | +52 (664) 501 1507 | Portfolio: https://josadacorozcorivera.github.io/ | Tijuana, B.C., México

EDUCATION

CETYS Universidad, Tijuana, Baja California, México — **June 2025**
*Bachelor of Science (B.S) in **Mechanical Engineering*** — **GPA:** 3.8/4.0
Concentration in Mechanical Design and Thermodynamics

- Academic Merit Scholarship 2021.
- Dean's List, Academic Excellence (2022, 2023, 2024).

TECHNICAL SKILLS

Mechanical Design Modeling & Assembly: SolidWorks, Simulation, Fusion360, AutoCAD**,** Promis-e (Hydro)
Manufacturing software: Prusaslicer, Cura, Mastercam.
Software: Matlab, CNC G code, C++ (basic).
Machinery: 3D printing, Laser cutting, CNC machine, milling, turning.
Materials science: Ansys Granta Edupack.
Soft skills: Leadership, proactive, critical thinker, communication skills, self-motivation.
Lean certification: Six Sigma Yellow Belt.
Languages: English (fluent), Spanish (fluent).

PROFESSIONAL EXPERIENCE

Solar Turbines Inc., Tijuana, B.C., México — **March 2024 – present**
Hydromechanical Design Engineer Intern
Package Refurbishment & Upgrade (PRU)

- Develop **Process & Instrumentation Diagrams (Hydro-mechanical Dwgs)** according to ISA S5.1 for various turbine hydromechanical subsystems upgrades and retrofits, such as start, fuel, lube oil, seal, enclosure, fire and gas systems.
- Verify equipment specifications and ensured cross-compatibility for Variable Frequency Drive (VFD), Burner Acoustic Monitoring (BAM), and Gas Fuel systems integration in a Gas Turbine, according to operational specifications.
- Develop **hydro device requirement lists**, which specify the adequate devices to use in Gas Turbine retrofit and upgrades.
- Conduct **technical presentation** of hydromechanical device integration to customer.
- Conduct training sessions for new arrivals in turbine subsystems processes and instrumentation, augmenting team competencies in implementing PRU projects.

LEADERSHIP ACTIVITIES

CETYS Aerodesign Society (CADIS) — **January 2023 – present**
Founder & Technical Project Manager

- **Manage** a group of 10 members of different engineering areas, including recruiting, interviewing, onboarding them on weekly meetings, and teaching use of SolidWorks and 3D printing software.
- **Achieve** top 4 placements at Cal State LA's 3D-Printed Fixed-Wing Aircraft Competition (May 2023, 2024)
- Secure 75% of project sponsorship funding ($1200 USD) for international aero engineering competition.

Lead Designer

- **Apply** fundamental aerodynamic principles to design aircraft including airfoil selection and wing optimization.
- **Design** internal wing structure geometry, optimized for 3D printing, achieving a 12% weight reduction.
- **Fine-tuned** 3D printing software parameters, reducing overall printing time in 8%.
- **Design** airframe's carbon tube routing for optimal **structural integrity** and easy assembly of aircraft.

Quantum Engineering Student Group — **July 2022 – December 2023**
Technical Project Manager

- **Design**, **justify** and manufacture the mechanical structure for an autonomous rover that sustained 40G of acceleration, using FEA, for the ARLISS project, an international high power rocketry competition.
- Select, improve and **test** a parachute release system to ensure functionality under desired conditions.
- Select materials, **design**, and manufacture shock-absorbent wheels to protect electronic components from 10-foot drops.
- **Design** and **develop** a fiberglass rocket from scratch, for the Tripolli Rocket Association Rocket Launch Contest, acquiring the L1 certification.