

# Basil Aranda



Active Security Clearance | Sylmar, CA. 91342 | [basil.aranda123@gmail.com](mailto:basil.aranda123@gmail.com) | (818) 356-3764 | [thymetravel.github.io](https://thymetravel.github.io)

## Work Experience

### Lockheed Martin Skunk Works ADP

August 2023 - Present

#### Manufacturing Engineer

- Create solutions and containment plans for recurring high-cost and mission critical product defects saving hundreds of thousands of dollars while ensuring adherence to AS9100
- Support the manufacture, repair, and overhaul of specialized legacy aircraft, vital to the Pentagon's security portfolio
- Perform root cause analysis (RCCA) for preventable issues on the entire aircraft from incoming inspection through flight certification while leading implementation of those solutions
- Engage in practical engineering methodologies to troubleshoot and validate issues, involving hands-on inspection, metal fabrication, and 3D CAD design

### Aerojet Rocketdyne

May 2022 – August 2022

#### Project & Component Engineering Intern

- Designed Liquid Divert and Attitude Thruster Control System manifold, valves, and injector for Interceptor Program
- Improved process efficiency of Manufacturing Bill of Materials creation by over 99.6% utilizing advanced data science
- Created Qualification and Acceptance standards utilizing strict SMC and AIAA requirements for testing and flight readiness
- Presented feasibility research and results to industry-leading subject matter experts on both thruster and injector assemblies

### NASA Armstrong Flight Research Center

January 2022 – May 2022

#### Controls System Engineering Intern

- Developed electromechanical interface and flight control system for human-sized quadcopters
- Modeled and simulated flight controllers and high power motors using control systems and actual hardware frequency
- Worked with and designed PWM-based motors with transient disturbances and damping

### NASA Stennis Space Center

August 2021 – December 2021

#### Program & Planning Intern

- Designed on-site program for future NASA NCAS Scholars focusing on competitive time-limited engineering challenges
- Project will be adopted at other NASA Centers for their specific NCAS programs exhibiting key modularity

### Santa Clarita Community College District

June 2019 – June 2020

#### Student Trustee

- Elected by peers to represent 30,000 students as the sole student representative on the SCCC Board of Trustees
- Introduced extensive legislation towards environmental sustainability and led demonstrations for student success

## Education

### California State Polytechnic University, Pomona

May 2023

B.S. Aerospace Engineering, magna cum laude

GPA: 3.76

Astronomy Minor

## Skills & Abilities

**Software:** Python, C++, MATLAB, C, SolidWorks, CREO, Fusion 360, Altium, Microsoft Office Suite, Adobe Premiere

**Industrial:** Project Development, Systems Engineering, Technical Writing, Manufacturing Design, Controls Engineering

## Publications

Aranda, Basil P., et al. "Design of Dual Mars Ascent Vehicle MAVERICK." *American Institute of Aeronautics and Astronautics AIAA 2023-4779*, 2023, <https://doi.org/10.2514/6.2023-4779>.