

Paden Hall

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PROFESIONAL SUMMARY

I am a result driven project lead with 2 years of operational aviation industry expertise and 1 year of design and manufacturing engineering experience who has experience in making data driven decisions on multiple projects including aerodynamic testing, structural analysis, CFD simulation, and manufacturing process development. These projects have given me experience in orchestrating cross-functional teams to execute complex problems efficiently in design as well as time. My hands-on experience includes operating low- and high-speed wind tunnels, high precision CNC machines, structural loading devices, and CAD/CFD software.

AREAS OF EXPERTISE

MATLAB
NASTRAN & FEMAP
PowerPoint
Excel

Prototyping
SolidWorks
Ansys Fluent
CNC Machining

Strategic Planning
Conflict Resolution
Process Optimization
Performance Accountability

CAREER HIGHLIGHTS

Technical Analysis: Completed 3+ computation fluid dynamic simulations (airfoils, full models, cavities, etc.) along with 2 completed numerical computing programs in MATLAB for velocity and vorticity confirmation. FEA/NASTRAN analysis of aircraft fuselage.

Management: 2+ years overseeing airport ramp operations for Amazon Air having over 80 people under my supervision and 3+ years of leading project-based teams through technical analysis and safe wind tunnel operation to achieve quality data collection.

WORK EXPERIENCE

Lucix Corporation

Manufacturing Engineer (Intern)

Camarillo, CA

May 2025- Present

- Spearheaded installation of a scribe marking machine, reducing cycle time by 56% and eliminating bottleneck in the assembly process
- Developed an Excel-VBA/Power Query tool to automate cycle time tracking across 40+ part numbers, to cut overall manufacturing cycle time by 10% and enabling real-time performance analytics to make data driven decisions
- Fabricated 10+ custom fixtures (tolerances ± 0.005 in), ensuring reliability for testing and screening processes.
- Contributed to the maintenance of a safe and clean working environment by adhering to health and safety protocols outlined by OSHA and set place 5s protocols to have long lasting effect.

Amazon

Process Assistant

San Bernardino

Jun 2021 – Feb 2024

- Led and optimized a high-performing team of 80+ aviation personnel, overseeing daily airport operations to ensure seamless cargo processing, on-time departures, and strict compliance with FAA/TSA safety protocols.
- Collaborated with cross-functional teams that optimized operations, leading to reduced operational costs through a reduction in turnaround time of 13% per aircraft.
- Conducted routine inspections and enforced security protocols to maintain 100% compliance with FAA, TSA, and NTSB regulations optimizing workflows to ensure efficient service delivery.
- Performed weight and balance operations for B767, 737, and A350 aircraft, enforcing 95%+ compliance with all carrier safety and operational standards while maintaining precise load calculations.

PROJECT EXPERIENCE

Particle Image Velocimetry (PIV)

Project Deputy and Wind Tunnel Operations Lead

Pomona, CA

Jun 2022 - Present

- Lead and trained 10+ students in PIV techniques, fostering a skilled team capable of conducting independent fluid dynamics research, while ensuring all safety protocols and deadlines were met
- Collaborated with a multidisciplinary team to integrate PIV measurements with theoretical models, improving prediction accuracy of fluid behavior.
- Operated Particle Image Velocimetry (PIV) system in coordination with wind tunnel operation to collect pressure and velocity data to allow for comparable analysis between CFD models to allow for more comprehensive CFD models to be tested.

Blended Wing Body (BWB)

Computational Fluid Dynamics Lead

Pomona, CA

Aug 2024 - Present

- Led a team in performing CFD analyses on multiple airfoil and Blended Wing Body (BWB) configurations, achieving 85%+ accuracy and validating results across models
- Collaborated with 3+ cross-functional teams to streamline data sharing, ensuring seamless project integration and on-time delivery.
- Performed 30+ CFD and FEA simulations in ANSYS Fluent and NASTRAN to optimize aerodynamic performance, achieving 80% accuracy. Extracted aerodynamic load data to drive structural simulations in NASTRAN/FEMAP, ensuring robust design validation.

EDUCATION

California State Polytechnic University, Pomona

Bachelor of Science Aerospace Engineering

Pomona, CA

Graduation Date: August 2025

Structures I & II – Thermodynamics - Orbital Mechanics - Avionics - Aero Control System - Low-Speed/High Speed Aerodynamics - Vibrational Dynamics - Finite Element Analysis - Jet Propulsion - Computation Fluid Dynamics - Aircraft Design - Ethics