

# Catherine Foye

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## Junior-Level Engineer

Recent graduate with professional experience in aviation engineering. Innovative professional who brings fresh ideas to succeed in today's business environment. Proficient in Microsoft Office Suite, Adobe InDesign and FrameMaker, AutoCAD, CATIA V5R13, Power BI, Python, C, MATLAB, and VBA and adept at quickly learning new programming. Skilled in drafting and creating composite lay-ups and tooling, as well as machining processes for 3-, 3.5-, and 5-axis CNC. Knowledgeable in FEA and aerostructure design. Hold FAA Airframe, Powerplant, and Repairers License.

### Areas of Experience

- Airframes & Powerplants
  - Systems Engineering
  - Component Configuration
  - Aircraft Inspection
  - Systems Safety
  - Aviation Dispatching
  - Quality Engineering
  - Reliability & Maintainability
  - Revenue Management
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## EDUCATION & CERTIFICATIONS

**Bachelor of Science in Aeronautical Engineering Technology** | Purdue University, West Lafayette, IN (2019)

*Minor in Airframe and Powerplant Maintenance; GPA: 3.0/4.0 MGPA: 3.4/4.0*

*Study Abroad, Aviation Tour of Europe – studied WWII's impact on aviation and transportation development*

*Member, Student Council – School of Aviation and Transportation Technology*

Certificates in A&P Mechanics, NDT Liquid Penetrant Level II, Magnetic Particle Level II, Eddy Current Level I

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## EXPERIENCE HIGHLIGHTS

**REPUBLIC AIRWAYS**, Indianapolis, IN

**Component Reliability Engineering Analyst**, 1/2020–4/2020

**Engineering Intern**, Summer 2019

Led work group responsible for analyzing bleed system of entire fleet, investigating root causes for issues with system components. Performed FMEA per criteria, prioritizing problematic components to avoid downtime and interruptions. Coordinated with vendors to obtain necessary modifications and upgrades of high-risk components. Created and revised engineering maintenance documentation. Designed layout for two new aircraft interior configurations. Analyzed stock to reduce or eliminate costs and unnecessary stock.

### **Key Accomplishments:**

- Saved 10 hours per week by automating weekly audits using Python and writing VBA macros for weekly and monthly reports.
- Reduced cost per component by \$5,000 each by negotiating with vendor to overhaul component instead of repair it.
- Hired full-time following engineering internship (summer 2019).

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Page Two of Two

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## **PURDUE UNIVERSITY AIRPORT, West Lafayette, IN**

### **Aircraft Dispatcher, 8/2017—12/2019**

Supported flight and maintenance departments. Dispatched telephone and radio calls and updated flight operations system. Maintained records for fleet of 30+ aircraft, assigning aircraft, tracking cancellations, and monitoring fuel usage.

#### **Key Accomplishments:**

- Implemented new flight dispatching software, working with team to improve quality of data acquisition activities targeted to maximizing fleet utilization.
- Served as first point of contact for students and instructors in case of emergency.

## **DUNCAN AVIATION, Battle Creek, MI**

### **Bombardier Airframe Intern, Summer 2018**

Conducted quality inspections and maintenance for airframe systems and components. Prepared various documentation to record company's compliance with its policies and FAA regulations.

#### **Key Accomplishments:**

- Achieved 100% completion rate of maintenance activities during busiest time of year, serving as key contributor on team of four to six from task start to completion.

## **AMERICAN AIRLINES, West Lafayette, IN**

### **Revenue Management Mentee, 8/2017—5/2018**

Conceptualized original, customer-focused ancillary product and presented proposal to executives. Analyzed data using revenue management strategies to locate performance drivers across three market segments.

#### **Key Accomplishments:**

- Simulated ancillary product projected to save \$2 million in revenue annually.

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## **COMMUNITY LEADERSHIP**

## **CHURCHES IN MISSION, Mooresville, IN, Present**

### **Volunteer**

- Donate time and service at local food pantry serving residents within Morgan County.