

# JESSE ALEXANDER GADDIE

## MECHANICAL ENGINEER

✉ GADDIE.ALEX@ICLOUD.COM

☎ (682)-201-5846

📍 MELBOURNE, FL

🌐 <https://alexgaddie.github.io/>

## EDUCATION

### Master of Science

### Mechanical Engineering

### Graduate Certificate in

### Aerospace Engineering

FLORIDA ATLANTIC UNIVERSITY

📅 Aug. 2022 - Dec. 2023

📍 Boca Raton, FL

### Bachelor of Science

### Mechanical Engineering

FLORIDA ATLANTIC UNIVERSITY

📅 Aug. 2018 - May 2022

📍 Boca Raton, FL

## Awards

- 2024 RTX Ergo Cup Winner
- 2024 Q2 Process Center Engineer of the Quarter

## Certifications

- Engineering In Training, EIT #1100026138
- GeoTol Pro Applications and Stack Analysis Training #4229459329AG

## Skills

- AutoCAD
- Revit (Mechanical)
- SolidWorks
- MATLAB
- Microsoft Office
- ANSYS

## EXPERIENCE

### COLLINS AEROSPACE

#### Senior Engineer, Mfg Engrg-Ops

📅 Nov. 2024 - Present

📍 Melbourne, FL

- Managing the acquisition and planned integration of a Kurtz Ersä VERSAFLOW 4/55 selective soldering system to expand process capacity and flexibility.
- Designing and fabricating custom tooling, while updating processes and optimizing throughput on Nordson Integra and ACE selective solder systems to enhance yield and reduce cycle time.
- Initiating a Pick-by-Light storage project for SMT, targeting \$300K in annual labor savings while improving staging accuracy and reducing setup times.
- Led deployment of the Asscon VP6000 vacuum vapor phase reflow system, enhancing soldering process consistency for complex PCB assemblies.
- Conducted comprehensive time studies across Process Center operations, developing a detailed SMT staging matrix to quantify setup times and identify efficiency improvements
- Implemented a new flux solution for vapor phase reflow, reducing defect rates and generating projected savings of \$15K annually.
- Tracking and analyzing SMT escape KPIs using backend AOI data and SAP defect records to identify root causes, improve defect detection, and develop targeted operator training plans.

#### Engineer II, Mfg Engrg-Ops

📅 July 2023 - Nov. 2024

📍 Melbourne, FL

- Drove Automated Optical Inspection (AOI) machine performance improvements, reducing FPMO from 17,000 down to 8,000, significantly reducing operator intervention.
- Planned and executed the implementation of Omron XT-750 3D AXI systems, establishing workflows and inspection criteria to enhance X-ray inspection capabilities for complex PCB assemblies.
- Managed the deployment of three new Koh Young AOI systems, overseeing process integration, operator training, and correlation activities to improve defect detection and reduce false calls.
- Designed and fabricated stability fixtures to secure PCBAs during solder paste dispensing, improving repeatability and accuracy in paste deposition for complex assemblies.

#### Co-op, Mfg Engrg-Ops

📅 Jan. 2023 - July 2023

📍 Melbourne, FL

- Improved existing operational processes to decrease redundancy and increase operator performance.
- Investigated and resolve factory malfunctions, downed machines, and scrap printed circuit boards.
- Developed methods and strategies to reduce damaged printed circuit boards.
- Designed fixtures, components and tools using SolidWorks to support production line processes.
- Created MATLAB programs to obtain metrics on factory operations.

### KAMM CONSULTING

#### Mechanical Design Engineer

📅 Mar. 2022 - Jan. 2023

📍 Deerfield Beach, FL

- Performed heat load and energy calculations within the standards and procedures of the Florida Building Code.
- Prepared engineering schedules, details and plans under the project manager's direction.
- Designed HVAC systems using AutoCAD and Revit for residential and commercial buildings.
- Examined and inspected existing mechanical and electrical equipment on site for clients.
- Identified and sized mechanical equipment based on client requirements.

### ATLANTIC NATIONAL GOLF CLUB

#### Outside Operations

📅 Jun. 2021 - April 2022

📍 Lake Worth, FL

- Assist members with moving and cleaning of golf equipment upon arrival and departure.
- Greet and recognize members as soon as they enter golf staging area.
- Maintain high overall cleanliness of the cart garage and all related work areas.

### ABERDEEN GOLF AND COUNTRY CLUB

#### Outside Operations

📅 Dec. 2019 - Jan. 2021

📍 Boynton Beach, FL

- Assist members with moving and cleaning of golf equipment upon arrival and departure.
- Greet and recognize members as soon as they enter golf staging area.
- Maintained high overall cleanliness of the cart garage and all related work areas.