

# Edward Vivanco

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## Education (Cumulative GPA: 3.28/4.00)

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**University of Central Florida (May 2018 – August 2020)** – B.S. in aerospace engineering

**Valencia College (August 2016 – May 2018)** – A.A. in General Education

**Auburn University (August 2012 – December 2015)** – B.S. in chemical engineering (transferred out before completion)

## Certifications

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**National Institute for Metalworking Skills (October 2020 - January 2021)** - Measurements, Materials, & Safety; CNC Mill Operations

**Udemy.com (September 2020)** – Ansys CFD Level 1

**Florida Board of Professional Engineers (March 2021)** – Engineer Intern (Mechanical)

## Recent Experience

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**Project: Rocket-Powered Glider (August 2019 – May 2020), University of Central Florida; Orlando, FL**

- Designed attitude determination algorithm using Madgwick filter quaternion calculations
- Constructed autopilot control system and conducted thorough aerodynamic and propulsive analysis to optimize wing, fuselage, tail, and assurance of autopiloted flight during boost, glide, and landing phases.

**Recitation Leader and Engineering Lab Assistant (May 2018 – July 2020), Valencia College; Orlando, FL**

- Taught engineering students the fundamentals of static and dynamic structure analysis by applied mechanics, mathematics, conventional conservation laws – increased passing rates for students in engineering courses
- Improved proficiency among students in MATLAB and Excel for solving engineering related problems

**Kitchen Staff (December 2017 – May 2018), Toasted Craft Sandwiches; Orlando, FL**

**Production Assistant, Juris Imaging & Graphics (September 2016 – August 2017); Orlando, FL**

**Litigation Assistant (May 2016 – September 2016), Law Office of Dan Newlin & Partners; Orlando, FL**

## Technical Skills

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- Knowledgeable in the subjects of aerodynamics, aerothermodynamics, propulsion systems, orbital mechanics, and aerospace structures
- **Structural Loading Analysis** – NASTRAN, ANSYS
- **Computational Fluid Dynamics** – ANSYS, OpenFOAM
- **Computer Programming** – C/C++, Python, Java
- **Statistical Data Analysis** – MATLAB, Microsoft Excel
- **Data Acquisition** - LabView
- **Computer Aided Design** – Solidworks, Fusion 360, Solid Edge
- **Orbital and Suborbital Mission Design and Analysis** – STK, GMAT
- **Control Design** – MATLAB/Simulink