

KENECHUKWU EZENDUKA

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EDUCATION

Bachelor of Science, Aerospace Engineering

Jan 2016 - Dec 2020

The Pennsylvania State University, State College, PA

RELEVANT WORK EXPERIENCE

Boeing Company

Jan 2020 - Present

Belcan Structural design engineer

- Actively practiced ASME Y14.5 and Y14.00 Geometric Dimensioning and Tolerancing standards in designing wire support structure to ensure machinability
- Performed detailed 2D and 3D Computer Aided Designs (CAD) of wiring support structure using CATIA V5 and Enovia systems
- Supported the development of component and installation drawings to provide design documentation to downstream groups
- Coordinated with stress and wiring teams to ensure structural safety requirements are sufficiently met
- Frequently held presentations to showcase progress and brainstorm through challenging design issues

Student Space Laboratory Program (SSPL)

Aug 2018 - Dec 2018

Mechanical Team Lead

- Led the aerospace/mechanical systems team, to design a cost-effective payload for a rocket
- Exceeded budget expectations for the project by removing redundancy and carefully selecting cost efficient materials
- Performed CAD design and FEA stress/strain analysis of rocket payload using SolidWorks

Design Analysis Technology Advancement (D.A.T.A) Laboratory

May 2019 - Aug 2019

Research Intern

- Designed various aerodynamics experiments using C# and python scripting code to verify the effectiveness of NVIDIA's Unity FleX as a physics simulation engine
- Built and integrated a quadcopter designed to contain a trainable artificial intelligence brain

Department of Mechanical & Nuclear Engineering

Jan 2018 - Aug 2018

Research Intern

- Collaborated with a team of student researchers to create designs for a closed loop water system
- Exceeded budget for closed loop water system by 90%
- Designed a research experiment to test the effects of interfacial mass transfer on bubble dynamics in quiescence water utilizing high-speed cameras and MATLAB image processing algorithms
- Mentored and assisted new research interns with research experiments

CAPSTONE PROJECT

Tilt-Wing Rotorcraft design

Aug 2020 - Dec 2020

Design team member

- Performed momentum theory aerodynamic analysis of tilt-wing rotorcraft concept to optimize aircraft performance
- Led design of propulsion systems consisting of Wankel engines to ensure high thrust to weight ratio and ultimately cut aircraft weight by 20%

COMPUTER PROFICIENCIES

Computer Programming (MATLAB, C++, Python); CAD design (SolidWorks, CATIA V5); MS OFFICE (Excel, Word, PowerPoint)

