

# KEMUEL NELSON

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## EDUCATION

**Florida State University, Tallahassee, FL**

Expected: May 2020

Bachelor of Science in Mechanical Engineering

**GPA:3.01**

*Relevant courses:* Fundamentals of Aerodynamics, Thermo-Fluid Design, Gas Dynamic, Propulsion, Dynamics II

*Relevant skills:* Matlab, Creo Parametric, Design Manager, Fluent verbal and writing in Haitian Creole; verbal-French

## RELEVANT EXPERIENCE

**Florida Power & Light Company, Melbourne, Florida**

May 2019 – August 2019

*Distribution Intern (Project Management)*

- Generated service meter orders for customers that desired to get electricity from the company
- Visited the site provided by the customer to identify the construction status and ways for them to obtain electricity
- Used Design Manager (computer-aided design and drafting software) to construct new electric grid utilities
- Validated designs using FPL standard by having the voltage drop/flicker below 5% and withstand a wind loading of 130 MPH
- Created job packages that consist of the job print, bill of materials for the job, and labels when applicable

**Oglesby Union Guest Services, Florida State University,**

May 2017 – May 2019

*Building Manager*

- Delegated responsibilities for 2-3 employees during a shift to ensure that rooms are set for current and next day events
- Entrusted with keys maintaining union and responsible for opening and closing each day
- Managed the inventory of lost and found items by logging item into data base from a variety of places on campus
- Clarified guest expectations by asking relevant questions

**Progressive Black Men, Tallahassee, FL,**

April 2017 – April 2018

*Community Service Chair*

- Coordinated service projects with co-chair for 50 members by networking with various organizations in the community
- Maintained and increased project participation and attendance by keeping everyone accountable via daily communications

## PROJECTS

**Senior Design (sponsor by Lockheed Martin)**

- Design a mechanism to support a mounted training simulator and seat an individual stored in maximum 2 cases
- Create adjustable dimensions for the seat and mounted training simulator
- Weigh each mechanism with their storage to be less than 88 lbs.

**Can Crushing Device (sponsor by FAMU FSU College of Engineering)**

- Developed a mechanism that would crush an empty can of soda
- Calculated model parameters using a 6v motor and a set of gears provided by the instructor
- Built a gearbox that provides a 292:1 reduction ratio which allows for an output torque of roughly 12.5 in-lbf

**Stirling Engine (sponsor by FAMU FSU College of Engineering)**

- Used Pro-E or Auto-Cad (computer-aided design and drafting software) to analyze schematics in order to remodel
- Assembled all the parts within Pro-E or Auto-Cad to ensure that dimensions of the parts fit together and resemble the engine
- Created a Bill of Material that show how to assemble the engine and label the parts

**Ratchetting Spring Clamp (sponsor by FAMU FSU College of Engineering)**

- Reverse engineered a Power Hand Clamp which consist of 11 parts by disassembling it
- Took measurements by using a Vernier caliber to design dimensioned Engineering drawings

## MACHINE SHOP/ LAB EXPERIENCE

- Used lathe, CNC, Mill to manufacture the parts needed for the Stirling Engine such as the bearing block, transfer guide
- Combined the parts based on the assemble from Pro-E and perform a test to investigated equipment failures
- Built a detailed report that compares the properties of the different metals by using statistical analysis

## ACHIEVEMENTS

**Six Sigma White Belt, Florida Power and light**

June 2019

**FGSLAMP Scholarship, Florida State University**

September 2017

**Gates Millennium Scholarship, United Negro College Fund**

May 2016

## ADDITIONAL EXPERIENCES

**Delta Kappa Omega Providence, Tallahassee, FL, Mentor 5 to 10 students**

September 2017 – Present