

CHUKWUBUIKEM UME-UGWA

City: Tampa, FL | Phone: (813)-352-7214 | Email: cume93@outlook.com | Web: <https://cleverchuk.github.io/>

Objective:

A well-rounded, detail oriented Chemical Engineer seeking fulltime Process Engineering role where I can use my skills to improve processes and reduce cost.

EXPERIENCE

Summer Intern	ICES, University of Texas, Austin, TX.	06/2017- 08/2017
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Computational Simulation and Visualization of Nanoscale Sintering

- Modelled nanoscale sintering using the phase field model.
- Developed a computational simulation of nanoscale sintering phenomena of metallic nanoparticles for use in novel micro selective laser sintering additive manufacturing applications.
- Used the first principles to develop a parameter search algorithm for obtaining feasible simulation parameters.
- Developed an algorithm to process and create a visualization of the different phases of nanoscale sintering.

Project Manager	Bug Tech LLC, Tampa FL.	02/2017 – 04/2017
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Self-Heating Bug Repellent System

- Awarded the Outstanding Product Design Award.
- Designed a product with 47% DCFRR on 5.3M initial investment over 5.4 years.
- Assigned team member task and managed meetings.
- Coordinated a team of 4 engineers.

Undergraduate Research	University of South Florida, Tampa FL.	06/2016 – 01/2017
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Glaucoma Treatment

- Trained rats to identify a target stimulus using operant conditioning.
- Acquired vision data.
- Modeled rats' contrast sensitivity.
- Identified the vision baseline for rats with normal vision and rats with glaucoma.

Tutor & Private Tutor	Pasco-Hernando State College	09/2014 – 08/2015
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- Facilitated student's understanding of fundamental mathematical and scientific concepts.
- Improved student's grades.

Subjects:

- Chemistry (Organic and General).
- Calculus I, II, & III.
- Physics.

Projects:

- **Industrial Digester Control System:** Used control principles to design a feedback and feedforward control system designed to keep an industrial digester within environmental specification. 04/2017 – 05/2017
- **Chemical Vapor Deposition reactor design:** Used reaction engineering principles to design a chemical vapor deposition reactor that has a theoretical yield of 75%. 08/2016 – 12/2016

EDUCATION

B.S in Chemical Engineering	University of South Florida, Tampa FL.	December 8th 2017
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Overall GPA: **3.75/4.0**; Major GPA: **3.67/4.0**

PROFESSIONAL ASSOCIATION

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- Tau Beta PI Engineering Honor Society
 - American Institute of Chemical Engineers
 - Institute of Electronic and Electrical Engineers

TOOL SET

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- **Intermediate** proficiency: Arduino, SIMULINK, COMSOL, Photoshop CC, Autodesk Inventor, EPI suites, WAR Algorithm.
 - **Advance** proficiency: Microsoft office suite, Aspen Plus.