

CHUKWUBUIKEM UME-UGWA

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Objective:

A well-rounded, detail oriented Chemical Engineer seeking fulltime Process Engineering role.

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 and visualization of the diffusion mechanism that take place during nanoscale sintering 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.

Project Manager	Bug Tech, Tampa FL.	02/2017 – 04/2017
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Self-Heating Bug Repellent System (**Senior Design Project**)

- 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	Pasco-Hernando State College	09/2014 – 08/2015
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- Administered proctored exams.
- Troubleshoot and resolved computer related problems.
- Facilitated student's understanding of fundamental mathematical and scientific concepts.
- Students improved grades.

Projects:

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| • 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

TOOLBOX

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- **Intermediate** proficiency: Arduino, SIMULINK, COMSOL, Photoshop CC, Autodesk Inventor, EPI suites, WAR Algorithm, C++, JavaScript, HTML/CSS.
 - **Advance** proficiency: Microsoft office suite, Aspen Plus, C, Python, C#, Java, MATLAB.