

CHUKWUBUIKEM UME-UGWA

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EXPERIENCE

Summer Intern	ICES, University of Texas, Austin, TX.	Jun 2017- Aug '17
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Computational Simulation and Visualization of Nanoparticle Sintering

- Simulated nanoparticle sintering to better understand the physics then develop a sintering machine.
- Used the first principles to develop a parameter search algorithm for obtaining feasible simulation parameters in C/C++.
- Developed a parallel algorithm for data processing and visualization in Python.

Undergraduate Research	University of South Florida, Tampa FL.	Jun 2016 – Jan '17
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Glaucoma Treatment

- Trained rats to identify a target stimulus using operant conditioning.
- Optimized a MATLAB data collection program to enable faster data acquisition and reduced modeling time.
- Modeled rats' contrast sensitivity to characterize the effectiveness of glaucoma therapeutics.

Projects:

- **Carpool Friends:** A social networking application for managing carpools. May 2017 – present
- **Control System for industrial Digester:** A feedback and feedforward control system Apr 2017 – May '17 designed to keep an industrial digester within environmental specification.
- **My Car Finder:** An application that makes finding your car less of a hassle by saving May 2016 – present parking location and routing to the location. Get it <http://bit.ly/2jnpp98>.
- **Self-Heating natural bug repellent system:** A repellent dispersion system that uses Feb 2017- April '17 exothermic reaction to aid dispersion of repellent.
- **Chemical Vapor Deposition reactor design:** A vapor deposition reactor that has a Oct 2016 – Dec '16 theoretical yield of 75%.
- **Report Analyzer:** An application that reduces the amount of time it takes to grade a lab Dec 2016 - Feb '17 report by doing a word count analysis on report sections.
- **Trading Journal:** A trade documentation application. Sep 2014 – present

EDUCATION

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

AWARDS AND HONORS

Outstanding Product Design Award

Department of Chemical and Biomedical Engineering

University of South Florida.

PROFESSIONAL ASSOCIATION

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

NOTABLE TECHNICAL SKILLS

Programming Languages:

- **Basic** proficiency: SQL
- **Intermediate** proficiency: C++, HTML/CSS, JavaScript
- **Advance** proficiency: C, Python, Java, C#, MATLAB

Software Suites:

- **Intermediate** proficiency: SIMULINK, COMSOL, Photoshop CC, Autodesk Inventor, Eclipse
- **Advance** proficiency: Microsoft office suite, Visual Studio, Android Studio, Aspen Plus