

Nicole Sarna

2777 SW Archer Road #310 • Gainesville, FL 32608 • 407-252-1867 • nicolesarna@ufl.edu
nicolesarna.com • <https://www.linkedin.com/in/nicolesarna>

EDUCATION

B.S. Biomedical Engineering University of Florida - Gainesville, FL	Expected May 2021
---	-------------------

UNIVERSITY INVOLVEMENT

- | | |
|--|---------------------|
| • Biomedical Engineering Society , Member | Jan. 2019-Present |
| • Society of Women Engineers , Member | Jan. 2019-Present |
| • UF Orchestra , Violinist | Aug. 2017-Dec. 2017 |

RESEARCH EXPERIENCE

Department of Biomedical Engineering and Chemical Engineering Undergraduate Research Assistant, University of Florida, FL	Jul. 2019-Present
--	-------------------

- Evaluating magnetic nanoparticles for *in vivo* imaging applications in the context of cancer immunotherapy
- Characterization of limit of detection and quantification using the MOMENTUM Magnetic Particle Imaging system for *in vivo* studies
- Contributing to development of MATLAB code to analyze Magnetic Particle Imaging data sets
- Advisor: Carlos Rinaldi, PhD

DebrisSat Research Project Undergraduate Research Assistant, University of Florida, FL	Sept. 2017-Dec. 2018
---	----------------------

- Research for collaborative project between NASA, The Aerospace Corporation, and the US Air Force Space and Missile Systems Center
- Collected data to update NASA's Standard Breakup Model using Orbital Debris Modeling
- Analyzed and characterized space debris fragments generated by hypervelocity collision on a model satellite
- Advisor: Norman Fitz-Coy, PhD

PARTICIPATION IN CONFERENCES AND TECHNICAL MEETINGS

American Institute of Chemical Engineers (AIChE)	2019
---	------

- Presented poster titled, "Evaluating the Sensitivity of the MomentumTM Magnetic Particle Imaging System for Ferucarbotran Iron Oxide Nanoparticles" in the Undergraduate Student Poster Competition, Orlando, FL
November 11, 2019.

IEEE Engineering in Medicine and Biology Conference (EMBC)	2016
---	------

- Participated in a healthcare design challenge to improve sleep apnea machine

WORK EXPERIENCE

Bob Evans Farms, Inc.	Jun. 2016 – Mar. 2017
------------------------------	-----------------------

Hostess / Cashier / Carryout Supervisor

- Supervised carryout orders, seated guests, cashed out customers, and managed the bakery.

TECHNICAL PROFICIENCIES

- MOMENTUM Magnetic Particle Imaging System
- Dynamic Light Scattering (DLS) instrument
- Dynamic magnetic susceptibility (DMS) instrument
- Histological microtome
- MATLAB Programming
- Autodesk Inventor (3D CAD)

HONORS/AWARDS

- | | |
|--|------|
| • Valedictorian at Winter Park High School | 2017 |
| • AP Scholar with Distinction | 2016 |