

# Emery Gabriel Gonzales Mangona

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## Education

Bachelor of Science in Physics  
Old Dominion University  
Thesis Advisor: Dr. Perry Nerem  
Minor: Mathematics

**Aug 2016 – Dec 2020**

## Skills

MATLAB (>3 years)  
LaTeX Typesetting (>3 years)  
Auto Repair and Maintenance (>5 years)

HTML5 (>1 year)  
CSS3 (>1 year)  
JavaScript (>1 year)  
C++ (<1 year)

Communication  
Collaboration  
Organization

## Industry Experience

Old Dominion University Research Foundation

*Particle Physics Lab Member under Dr. Lawrence Weinstein*

**2018-2018**

My responsibilities as a lab/research member included assisting in the build, maintenance, data collection, and execution of time-of-flight experiments, using scintillators, light guides, and photomultipliers.

*Geophysics Research Assistant for Dr. Hans-Peter Plag*

**2017-2018**

My responsibilities as a research assistant included literature reviews, compiling documents and media pertaining to Caribbean Sustainable Development Goals. I greatly increased a library of credible literature about Sustainable Development Goals to educate the public and assist in future research.

## Individual Pursuits

Codecademy Learning

*Frontend Engineer*

**2020-ongoing**

After learning programming languages such as C++ and MATLAB through various undergraduate courses, I grew a passion for it leading to certification pursuits in HTML5, CSS3, JavaScript and frameworks and libraries such as React.js and Redux.js.

Old Dominion University Independent Research

*Capstone Thesis*

**2020-2020**

Experimentation for departmental thesis inspired by Hamiltonian Monodromy. As a member of the research team for Dr. Perry Nerem, I was primarily tasked with analytically and computationally creating a light pipe that forces rays to have specific topology on exit.

*MATLAB Training*

**2018-2020**

Over the course of my degree, I have obtained 3 years of training in MATLAB to prepare for supervised research and a capstone thesis in the physics department at Old Dominion University.

*Lab/Research Assistant*

**2016-2020**

I have participated in research projects of multiple professors and labs at Old Dominion University. Extensive training in MATLAB, LaTeX, and various computer programming languages were developed.