MacVincent **Agha-Oko**

SOFTWARE ENGINEER · COMPUTER ENGINEERING MAJOR · CLAFLIN UNIVERSITY

☐ (+1) 704-858-7319 | ✉ amacvincent@claflin.edu | 🏠 macvincent.com | 💻 macvincent | 💼 amacvincent

Education

Claflin University   *Orangeburg, South Carolina*

CANDIDATE FOR A BACHELOR OF SCIENCE DEGREE IN COMPUTER ENGINEERING   *Class of 2022*

- Presidential Scholar, The Alice Carson Tisdale Honors College
- **GPA:** 4.0/4.0
- **Relevant Coursework:** Algorithms and Data Structures, Operating Systems, Foundations of Computing, Discrete Mathematics, System Analysis and Design, Computer Organization and Architecture, Introduction to Digital Logic Design, Circuit Analysis

Skills and Interests

- **Programming Languages:** C++, Go, Python, HTML/CSS/JavaScript
- **Libraries and Frameworks** Django, jQuery, TensorFlow, Numpy, OpenCV
- **Interests:** Robotics, Artificial Intelligence

Relevant Experience

Lyft   *Remote*

SOFTWARE ENGINEERING INTERN - DEPLOYS TEAM   *June 2020 - July 2020*

- Worked on internal tooling to improve how Kubernetes clusters are targeted by Lyft services at each deployment step
- Developed functionality to automatically batch, after an incident, the continuous deployment of backlogged commits made to a runtime configuration repository
- Made UI changes to help developers monitor the progress of commits made to that runtime configuration repository

Claflin University   *Orangeburg, South Carolina*

WRITING CONSULTANT   *August 2019 - Present*

- Work with student writers and their papers
- Help students understand how to structure, organize, and develop well-written documents

TUTOR COUNSELOR – MATH   *June 2019 - July 2019*

- Worked with Grade 10 - 12 High School students around the Orangeburg County area
- Provided personal guidance, mentorship, and support to a group of 5 students
- Assisted the Math teacher with general Math instruction

National Society of Black Engineers   *Orangeburg, South Carolina*

COMMUNITY SERVICE CHAIR (CLAFLIN CHAPTER)   *October 2019 - July 2020*

- Worked with NSBE Jr. chapters to setup programs that will help solidify the STEM and CS backgrounds of their students
- Organized programs that aim to solidify the CS foundation of students in the Claflin community

MEMBER   *January 2019 - March 2019*

- Tutored students weekly on the fundamentals of programming in Java
- Aided students' comprehension of basic CS concepts covered in their Intro to Java class

Institute of Electrical and Electronics Engineers   *Owerri, Nigeria*

PUBLIC RELATIONS OFFICER   *March 2017– April 2018*

- Successfully led the planning committee for the 2017 Student Professional Awareness Conference (SPAC)
- Aided with C++, Arduino Micro-Controllers and Web Development instruction
- In charge of recruiting efforts that led to an increase in membership

Software Projects

Highway Path Planner (https://github.com/macvincent/Highway_Path_Planner)   *May 2019*

- Given sensor data, determines optimal speed for ego vehicle and when it is safe to change lanes
- Generates trajectory for vehicle and makes use of a spline function to minimize jerk reactions

Extended Kalman Filter (https://github.com/macvincent/Extended-Kalman-Filter)   *March 2020*

- Implemented an extended Kalman filter to estimate the state of a moving object with noisy lidar and radar measurements
- Generated readings with a higher degree of certainty and a lower root-mean-square error value

Route Planner App (https://github.com/macvincent/CppND-Route-Planning-Project)   *May 2019*

- Used the IO2D library to render a 2D model of a real-world map, showing the shortest route between two points
- Found the shortest route by making use of the A* pathfinding algorithm

Lane Finder (https://github.com/macvincent/Advanced_Lane_Line_Finding)   *February 2020*
- Developed a pipeline that takes in image frames of a moving vehicle and identifies the car's lane
- Made use of OpenCV and numpy methods in calibrating the camera and tuning channel thresholds

Honors & Awards

2019	**Second Place**, National Society of Blacks in Computing (NSBC) Capture the Flag Competition	*Atlanta, GA*
2019	**Second Place**, Claflin University Annual Business Plan Competition	*Orangeburg, SC*
2018	**Semester of Excellence for Fall 2018**, Claflin University Honors and Awards Convocation	*Orangeburg, SC*
2016	**Best Graduating Student**, Federal Government Boys College	*Abuja, Nigeria*
2015	**Best Delegate United Nations Office on Drug and Crime (UNODC)**, Nigerian Model United Nations Society	*Abuja, Nigeria*