

# Kamsiyochukwu Okonkwo

Engineer

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## Technical Proficiencies

**Programming & Software:** Python, MATLAB, C++, ROS (Robot Operating System), Git, SolidWorks, AutoCAD, Microsoft Excel, Microsoft Word

**Tools & Platforms:** Arduino, Raspberry Pi, LEGO Mindstorms, Oscilloscopes, Motor Controllers, Tensorflow, Github, AWS Cloud, Pytorch, Jupyter Notebook

**Technical Skills:** Mechanical Design, Circuit Design, Soldering, Sensor Integration, Prototyping, Embedded Systems, CAD Modeling, PID Control, Computer Vision, Electronic Circuits, Machine Learning

## Qualifications Summary

- Robotics Programming
- Mechanical Design
- Embedded Systems
- Circuit Integration
- CAD Modeling
- Control Algorithms
- Sensor Calibration
- Project Leadership
- Team Collaboration
- Problem Solving
- Applied Mathematics
- Reinforcement Learning
- AWS Cloud

## Education

**B.Sc., Engineering with an Emphasis**

**Robotics (Minor: Cybersecurity)**

Grand Canyon University, Phoenix, AZ

## Experience Highlights

**Western States Fire Protection, Phoenix, AZ**

**06/2023– Current**

Project Manager / Designer

- Created detailed drawings through extensive use of CAD type software.
- Performed hydraulic calculations and Bill of Materials (BOM) analysis for design accuracy and cost estimation.
- Developed and maintained project schedules, ensuring alignment with safety, quality, and budget requirements.
- Collaborated cross-functionally with engineering and field teams to deliver project milestones on time.
- Built strong client relationships and communicated project updates to ensure satisfaction and alignment.

**Grand Canyon Education, Phoenix, AZ**

**08/2020– 02/2022**

Ground Operations Project Manager

- Supported university enrollment and event operations through planning, scheduling, and coordination.
- Provided front-line service and communication to students and departments.
- Managed student teams from various offices in different tasks and accomplishing goals through research and development.
- Organized logistics and assisted in streamlining campus operations.

## Additional Experience

- Researched and Programmed a LEGO Mindstorms robot in MATLAB to autonomously follow a black line using calibrated light sensors and PID control logic.
- Researched and Developed motion sequences for a 4-axis robotic arm to pick and place objects using coordinate-based inputs and precision motor control.
- Researched, designed, built, and programmed VEX robots for three years of competition, leading team efforts in mechanical design, testing, and performance optimization.
- Researched with other engineers and programed a robot to throw trash using a hand made robotic hand, using multimodal foundational models,

## Affiliations

**Grand Canyon University**

**Robotics Club, Phoenix, AZ**

Vice President, 08/2020- 4/2022