

# AMOAKO - FRIMPONG SAMUEL YAW



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## EDUCATION

MARQUETTE UNIVERSITY, WISCONSIN

Sept., 2016 - May, 2018

MS. Electrical and Computer Engineering      **Options** – Mod. Control Theory, Bayesian Signal Processing, Machine Learning

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI

Oct., 2011 - May, 2016

BSc. Aerospace Engineering

**Options** – Auto. Control, CAD/CAM, Maintenance Eng., Turbomachinery

## SKILLS

**SOFTWARE DEVELOPMENT:**      Python, C, C++, MATLAB, Visual Basic, LabVIEW, Java (incl. Android), Assembly

**ELECTRONICS:**      Circuit and PCB design, Embedded Systems (PIC, AVR, ARM)

**CAD/CAM:**      SolidWorks, Solid Edge, ANSYS, AutoCAD, Unigraphics NX, CFD, FEA, Laser Cutting, PCB milling, 3D Printing.

**OTHERS:**      Robotics, OpenCV, ROS, Gazebo, Linux, Unity Game Development, Virtual & Augmented Reality development, Remote sensing, QGIS, Internet of Things, Adobe Creative Suite.

## WORK & VOLUNTEER EXPERIENCE

### RESEARCH AND TEACHING ASSISTANT

September, 2015 – Present

Computer Vision and Sensing Systems Lab (COVISS)

Marquette University, USA

- Currently working on the development of stochastic search algorithms for improving the performance of mobile manipulators
- Currently serving as a teaching assistant for the Senior Design Project and Circuit Lab classes.

### RESEARCH AND TEACHING ASSISTANT [NATIONAL SERVICE]

Sept. 2015 – Aug., 2016

Earth Observation Research and Innovation Centre

University of Energy and Natural Resources, Ghana

- Assisted in the setup of a ground station for Earth Observation Satellites.
- Wrote code for the formatting of large datasets and the automation of data processing tasks.
- Assisted in the setup of software packages for the processing of satellite data and weather forecasting.
- Managed the processing and storage servers handling datasets acquired by the center.
- Designed an Unmanned Aerial Vehicle (UAV) for remote sensing and imaging.

### SOFTWARE DEVELOPMENT INTERN

Premium Collateral Management Ltd

July, 2016 – Aug., 2016

- Ported Excel documents used in calculations for the management of petroleum stocks into standalone applications to improve productivity

### EMBEDDED SYSTEMS TUTOR

MISE Summer Camp & Project ISWEST

July, 2012 – Aug., 2016

- Taught embedded systems to High School Students; Students built projects like Vision based coin counters, autonomous mobile robots and solar trackers.

### VOLUNTEER ENGINEER

Agbogbloshie Makerspace Platform

July, 2014 – Aug., 2016

- Built a UAV using E-waste for mapping the distribution of activities and airborne pollutants at the Agbogbloshie E-Waste Dump site

## PROJECTS

**QBAY** (Augmented Reality Educational app, 2015) **TECH-HAB-001/002** (High Altitude Balloon, 2014/2015) **P- [SPACE]** (Parking lot monitoring with Computer Vision, 2014) **HEAVY LIFT QUADCOPTER** (Transport and Mapping UAV, 2015) **TOPBIRD** (Gamified app for Entrepreneurship education, 2015) **IEEE-RCI** (A Robot Control Interface for Teaching and a Sonar mapping robot, 2015)

## LEADERSHIP EXPERIENCE

<b>Vice President</b>	–	Association of Aerospace Engineering Students (AAES) [2013-14] Creativity Group – KNUST [2013-14]
<b>Ass. Projects and Innovation Head</b>	–	Institute of Electrical and Electronic Engineers (IEEE) [2013-15]
<b>Public Relations Officer</b>	–	Association of Aerospace Engineering Students (AAES) [2012-13] Society of Automotive Engineers (SAE-KNUST) [2012-13]
<b>Project Lead</b>	–	Final year project & High Alt. Balloon, KNUST
<b>Microsoft Student Partner</b>	–	KNUST [2013-15]

## AWARDS

Ghana Institute of Engineers (GhIE) Students Calabash (3<sup>rd</sup> place)

Millennium Youth Camp Award

International Junior Science Olympiad (Bronze)

Ghana Engineering Students Association (GESA) Makers Fair 1.0 (1<sup>st</sup> place)

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Gamification Hackathon (Finalist)

OdadeE Special Award

Behance Medal

Accra Science Hack day (2<sup>nd</sup>)

DSTV-EUTELSAT Star Award (2<sup>nd</sup>)

Ministry of Environment., Science and Tech. (Ghana) Award

Ghana Robotics Academy Foundation Medal

## REFERENCES

Dr. Henry Medeiros	-	Marquette	( <a href="mailto:henry.medeiros@marquette.edu">henry.medeiros@marquette.edu</a> )
Dr. Amos Kabo-Bah	-	UENR	( <a href="mailto:amos.kabobah@uenr.edu.gh">amos.kabobah@uenr.edu.gh</a> )
Dr. Anthony Agyei-Agyemang	-	KNUST	( <a href="mailto:tonyagyemang@yahoo.co m">tonyagyemang@yahoo.co m</a> )