BARNABAS NARTEH APAFLO

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EDUCATION

University of Energy and Natural Resources (UENR), Ghana…..……...August 2015–June 2019
Bachelor of Science in Computer Science
- Cumulative GPA: 3.22/4.00

Achimota Senior High School, Accra, Ghana………………….....September 2009–August 2013

PROFESSIONAL EXPERIENCE

Senior Technician…………………………………………………………February 2021– Present
University of Energy and Natural Resources, Ghana
- Served as first point of contact for resolving desktop and laptop computer hardware and software issues
- Resolving problems with computer peripherals (printers, scanners, projectors)
- Installing and providing basic training on productivity software
- Administration of LAN network resources within the department
- Setting up and preparing computer lab for practical lab sessions

Teaching and Research Assistant ……………….…………….September 2019 –January 2021
University of Energy and Natural Resources, Ghana
- Assisting with tutorial sessions
- Consult on IOT, Embedded and Robotics projects and research
- Instructing practical lab programming sessions
- Grading students' projects and assignments

I. T. Intern …………….……………………………………………….June 2017 – August 2017
Sunyani Technical University Network Operating Center, Ghana
- Assisted with basic network operations
- Worked with hardware and maintenance unit
- Participated in Practical Training on router OS and firewall installations and configurations

I. T. Intern …………….…………………………..…………………..…June 2015 – August 2015
University of Ghana Computing Systems, Ghana
- Developed a shop management console application using C
- Developed a payroll management console application in C++

SKILLS & CERTIFICATIONS

Huawei Certification (Routing and Switching) ……………………………………………. June 2021
Fiber Optics Technology Workshop Certification……………………………......……March 2019
Fiber Optics Splicing, Johvic Fibertech Solutions Certification……………………February 2014
Languages: Java, Python, C++, C, VB.Net, PHP, CSS, HTML, MATLAB.
Databases: Microsoft SQL, MySQL, Microsoft Access.
SDLC: Waterfall & Agile (Scrum).
IDE/Tools: Jupiter Notebook, Anaconda, Eclipse, Netbeans, Sublime Text, Brackets, Visual Studio
Cloud Computing Platforms: Microsoft Azure.
Operating System platforms: Window, Linux.
Hardware: OS installation, memory/storage upgrade, Virtualization (VMware, VirtualBox).
Networking: MikroTik, pfSense, IPCop, IPFire, Smoothwall.
Others: Proficiency in Microsoft Office Word, PowerPoint, Excel.

PROJECTS

1. **IoT based Smart Home Energy Management System.**
   As my undergraduate final project, I developed a system to remotely control household electrical appliances from a web user interface. The control can be automated based on ambient weather conditions. The system also monitors and estimates power consumption of individual appliances. I used Arduino microcontroller equipped with WIFI and GSM modules in addition to relays and sensors wirelessly interconnected for interacting among the system's components. I programed and hosted a web server and control unit on the Arduino using C and PHP. I used HTML, CSS and JavaScript for the interactive web user interface.

2. **Computer Graphics Project.**
   I did a computer graphics semester project using MATLAB, to predict the causes of flight of bats based on their flight movements. The project scope covered two major flight movement scenarios; bats flying voluntarily or as a result of being frightened. I recorded a sample video of the different flight movements as a test input data for the project. The image processing involved writing MATLAB codes and functions to extract image frames from the video, computing the scaler correlation coefficient of successive frames using the corr2 MATLAB function, and comparing the values. The relatively greater correlation coefficient values implied high movement rate, which in turn denoted flight caused by being frightened. Lesser values implied low movement rate, and hence voluntary flight.

EXTRACURRICULAR ACTIVITIES

Achimota School Cadet Corp, Accra, Ghana……………………………October 2009–March 2013
Cadet Warrant officer II
- Color Party Escort at Parades

Achimota School Hockey Team, Accra, Ghana……………………September 2009–August 2013
Team member
- Participated in inter-school competitions

Playing Guitar