

Delmwin Baeka

linkedin.com/in/delmwinb/
github.com/dbaeka

+233503695535
dbaekajnr@gmail.com

Education

Shanghai Jiao Tong University, University of Michigan Joint Institute, Shanghai, China **Sept 2016 – Aug 2020**

- **BSc. Electrical and Computer Engineering**
 - Awards: SJTU Outstanding Graduate 2020, Dean's List (Fall 2019), International Student Scholarship Award 2017
 - Papers (Unpublished): Multimodal Attention Human Action Recognition project, Why Artificial Intelligence Accelerators Are Needed for Machine Learning Inherent Tasks
<https://github.com/dbaeka/ProjectPapers>
- **Minor in Entrepreneurship**
- **Head Teaching Assistant, Differential Calculus**
- **Assistant for Center of Entrepreneurship**
 - Lead website developer using PHP based backend and raw HTML5/CSS3 frontend

University of Maryland, College Park, USA

Spring 2020 Exchange Term

- **Electrical and Computer Engineering, 4.0 GPA**
 - Relevant Coursework: CMSC412 Operating Systems, ENEE440 Microprocessors (ARM), CMSC436 Programming for Handheld Devices (iOS), CMSC 498O Intro to Data Visualization

Kwame Nkrumah University of Science and Tech., Kumasi, Ghana

Sep 2015 – May 2016 (Incomplete)

- **B.S. Petroleum Engineering**
 - Awards: KNUST College of Engineering Best Student Award 2016, KNUST College of Engineering Excellent Student Award 2016, KNUST College of Engineering Provost List 2016/2017

Work Experience

Rookery Limited (Rook+), Accra, Greater Accra, Ghana

Chief Technology Officer | Lead Developer, Jun 2018 – Aug 2020

- Boosted coding efficiency by 50% in software development using Travis CI and GitHub.
- Implemented a custom chat system using Firebase, lovefield (web), Realm (mobile) technologies for Web (PHP and JS), iOS and Android platforms.
- Conducted weekly extensive review, and code analysis of developer team of 5, in person and remotely.

National Information Technology Agency (NITA), Accra, Greater Accra, Ghana

IP Engineer Intern, Feb 2018 – Apr 2018

- Re-established the defunct VoIP network structure for Ghana's Ministry of Communications and NITA offices, shaving off costs completely.
- Upgraded the company Database using SQL for SolarWinds' Orion Database to sync with previous network data from Cacti.
- Supervised the Network Operations Center (NOC) team to securely migrate all network monitoring in the country to SolarWinds' Orion NPM from Cacti.
- Researched and designed a setup to integrate software and hardware PBX systems (Asterisk and Huawei PBX).

Skills

Spoken Languages

English (Native), French (Read, Write), Akan (Read, Write, Speak)

Technologies

ReactJS, Django, Flutter, Sketch, XCode, Photoshop, Illustrator, vSphere, Keras, Flask, GatsbyJS, Docker, jQuery

Languages

HTML5/CSS3 (Excellent), C/C++ (Very Good), Swift (Very Good), JavaScript (Very Good), Python (Good), PHP (Good), Verilog (Very Good), ARM Assembly (Very Good), Dart (Good)

Projects

Rook+ mobile app (Flutter) and homepage (ReactJS)*

Mobile and web platform that connects students with companies for virtual internship
(<https://myrookery.com/>)

- Designed, built and shipped mobile platform in Flutter to the App Store and Play Store with 800+ Beta stage student users
- Designed homepage UI and developed web management tool using React and PHP for companies (20+ companies)

Project Tides (VMware) – Elastic Platform on Idle Cloud Resources

Open-source project to donate private enterprise cloud resources
(<https://github.com/dzl84/CloudTides>)

Project paper here:

https://bit.ly/project_tides

- Developed a tool using ReactJS frontend, Django backend and

Projects (continued)

- k8s to monitor vSphere cloud resources usage and dynamically donate resources to public volunteer computing through BOINC.
- Currently supporting development with VMware team to extend tool for Folding@Home towards finding COVID-19 solutions.

GeekOS x86 Kernel**

Tiny operating system kernel for x86 PCs running on Qemu.

- Extended operating system using assembly and C to implement forking, virtual memory, file systems, synchronization.

Tethi: Task Manager Program in ARM Assembly and C**

Custom timer-based task manager for ARM Cortex-M Processor

- Programmed the STM32L476 Discovery board to run GPIO, ADC, DAC, SPI, I2C and timer control functions in custom task manager environment.

Movie Data Visualization Tool in ReactJS**

Web-based tool for visualizing movie data with filter interaction control

Demo: <https://dbaeka.github.io>

- Built a fast rendering visualization tool for movies using ReactJS.

Repository Mining Tool for Java Code in Python**

Tool for analyzing all commits in Java repository and finding commits that have added a parameter to an existing method

- Used abstract syntax trees (ASTs) to analyze Java code and extract updated methods.
- Designed crawler in Python to concurrently run and scale up to speed up mining process on low end machines.

UMD Latency Research Website Tool (Flask)

Tool for analyzing how users respond to latency when doing visual search with panning and zooming.

(<https://visualsearchlatency.herokuapp.com/search-study/>)

- Designed visual tracking tool in Python which is scalable and synthesizes user interactions for latency analysis.

* *Private company repository. Demo can be shown upon request.*

** *Course requires private repository. Can be shared upon request.*