KOSI NWABUEZE

10801 Winnetka Ave ⋄ Chatsworth, California 91311

818-984-7615 ⋄ knwabueze1@hwemail.com

EDUCATION

Harvard-Westlake School, Los Angeles, CA   *August 2017 - Present*
Class of 2021   wGPA: 4.5 — uGPA: 3.9

OBJECTIVE

To gain workplace experience and some understanding of computer systems modelling in the context of a highly specialized and technical field.

PROJECTS

PHYS-S-12: Introduction to Digital Fabrication

During a 7-week course at Harvard Secondary School Program, enrollees of the PHYS-S-12 course were tasked to construct projects in a laboratory environment with a wide variety of tools at their disposal. By the end of the course, I created CIMBAL, a Portable Drum Kit, a controller which sends information between receiver and transmitter Arduinos via an RF24 radio module. The receiver Arduino then sends MIDI data to the Hydrogen drum machine software through USB to create a MIDI drum set. PHYS-S-12 had a particular emphasis on documentation. View documentation here. Documentation was created using Jekyll.

Harvard-Westlake Hackathon Website

Built the website for the annual Harvard-Westlake Hackathon event using vanilla HTML5, CSS3, and JavaScript. Website originally designed using the mock-up tool, Figma. View website here.

Connect M.D.

Built landing page for a joint project between me and another Harvard-Westlake Junior. Actual product still being developed. Landing page built using vanilla HTML5, CSS3, and JavaScript. Deployed website using AWS S3 and mock-up built using Figma. View website here.

Castor (Game Boy Emulator)

Developed software that runs a cycle-accurate emulator of the Nintendo Game Boy written in C#. Extensive research into the basics of computer architecture and assembly languages was conducted for this project. View project here.

GitHub

In addition to Castor, I have smaller projects that I have worked on in the past open-sourced on my GitHub page. View GitHub page here.

TECHNICAL STRENGTHS

Languages	C#, Java, C, C++, Python, HTML, CSS, JavaScript
Environments	Debian, Arch Linux, Windows 10
Frameworks & Libraries	React, Vue, .NET, Jekyll, MonoGame/XNA, LibGDX, Flask
Tools	Figma, Git, Visual Studio, LaTeX

EXTRACURRICULARS

picoCTF 4$^{\text{th}}$ place winner — picoCTF is the largest high-school cybersecurity competition operated by Carnegie Mellon University. I primarily tackled reverse-engineering and forensics problems during the competition. Out of 10,299 teams, Harvard-Westlake's cybersecuity team "hwcybsec" won 4$^{\text{th}}$ place.

Vice-President of Computer Science Club — As the vice-president of Harvard-Westlake's computer science club, I assist the club president with organizational tasks such as planning, emailing, and attendance. In addition, I also assist the club president in club activities, primarily lectures and presentations. I have held lectures on C, Assembly, Reverse Engineering, and 3D rendering.

Hackathon Organizer — In addition to developing the website for the annual hackathon event held at Harvard-Westlake, I was involved in organizing, logistics, and on-site technical help for the hackathon event as well.

Science Bowl — Harvard-Westlake's Science Bowl B team tied for 7$^{\text{th}}$ at the 2020 Los Angeles Department of Water and Power Regional Science Bowl event.

Local Library Volunteer — I volunteer under the Teen Volunteer at the local Porter Ranch branch of the LA Public Library.