Nafis Ahmed

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EDUCATION

Vanderbilt University

Bachelor of Engineering, Computer Engineering

Nashville, Tennessee

GPA: 3.73/4.00, May 2022

Technical skills: C++, MATLAB, Java, Python, Microcontroller Programming, High-Performance Computing

Relevant Coursework: Data Structures, Intermediate Software Design, Computer Organization, Operating Systems, Microcontrollers, Circuits, Signals & Systems, Image Processing, Economic Statistics

PROFESSIONAL EXPERIENCE

Neuroimaging & Brain Dynamics Lab

Undergraduate Research Assistant

Nashville, Tennessee May 2019 – Present

- Developed a machine learning model to automate the detection of vigilance states from EEG data with 91% accuracy. (Manuscript of the study that this project contributed to is under consideration for publication.)
- Investigating the nature of physiological signals in neuroimaging and their possible effects on cognition.

Kidambi Research Group

Nashville, Tennessee

Undergraduate Machine Learning Researcher

January 2020 – May 2020

- Created a pattern recognition system to identify different crystallographic systems from transmission electron microscopy (TEM) images.
- Ultimate goal is to grow carbon nanotubes from a non-traditional crystal catalyst which will, among other applications, enable significantly stronger carbon-fiber reinforced composites.

Department of Electrical Engineering & Computer Science, Vanderbilt University

Nashville, Tennessee

Teaching Assistant, Programming and Problem Solving (CS 1101)

August 2019 – Present

• Assist 200 first-time programmers in the introductory programming course by holding weekly office hours and providing feedback on assignments and exams.

LEADERSHIP AND ACTIVITIES

Elon Online Bookstore

Dhaka, Bangladesh June 2018 - Present

Founder

- Sell high school textbooks at the cheapest price in the city with free three day delivery.
- Guide a team of four to deliver *BDT 400,000 (USD 4,750)* worth of books every year to our *1,200*+ customer base, all the while maintaining *5.00/5.00* stars for our service.
- Spearheaded customer acquisition and promotional programs that lead to 79% growth in annual order volume.

Major League Hacking (MLH) Local Hack Day

Nashville, Tennessee

1st Place, Vanderbilt University

December 2018

• Developed the backend for a face detection attendance system using Microsoft Azure's REST API to count the number of students present in a classroom and prevent false attendance in TopHat.

VandvHacks

Nashville, Tennessee

Board Member, Communications and Marketing

January 2019 – December 2019

- Acted as the medium of communication between 650+ participants and the rest of the board to effectively organize and promote the largest hackathon in the state.
- Implemented marketing strategies that resulted in the highest turnout for on-campus workshops.

Vanderbilt Bongo Shongho

Nashville, Tennessee

Co-Founder, President

September 2018 - Present

- Undertake decisions to orchestrate events and promote the rich Bengali culture on campus.
- Funds raised have increased by 88% since elected as President.

${\color{red}Emperor Neuro - \underline{www.emperorneuro.com}}$

August 2019 - Present

• Creating a one-stop location to learn about and stay updated with the latest news on neurotechnology.