

# Anh Nguyen Quy

## Full-stack app developer

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### Anh Nguyen Quy

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Hanoi

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## Education

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Hanoi-Amsterdam High School for the Gifted | English-specialized Class  
2020 - 2023

### GPA

Grade 9: 9.2

Grade 10: 9.2

Grade 11: 9.5

### Standardized Test Scores

IELTS: To be taken this year.

SAT: 1540

AP Computer Science A: 5

AP Computer Science Principles: 5

AP Calculus BC: 5.

AP Statistics: 5.

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## Extra-curricular activities

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### Puzzles Ams Debate Club

*The competitive debate club of Hanoi-Amsterdam High School for the Gifted*

Oct 2020 - Aug 2021, Debater

- Competed in debate tournaments nationally
- Participated in weekly training sessions
- Created a debate motion database with 197 motions in both English and Vietnamese with other club members
- Acted as a Plaintiff's Attorney in a Mock Trial event that attracted over 100 participants

### Hanoi-Amsterdam Model UN Association

*The competitive MUN club of Hanoi-Amsterdam High School for the Gifted*

Oct 2020 - Aug 2021, Member

- Participated in weekly training sessions
- Led the club in organizing a mock MUN conference for the United Nations Environment Program, participated in the writing of a detailed 7500-word Guidebook on the topic of Environmental Racism as well as chaired the Conference

### Hanoi Model United Nations Organizations

*A professional student-led organization with yearly operations hosting the annual HMUN conference, one of the most anticipated MUN conferences in Vietnam.*

2021, Crisis Director

- 1 of the 4 Crisis Directors of the Joint Historical Crisis Council (JHCC) featuring the American Revolution for HMUN 7<sup>th</sup> Session
- Participated in the writing of a comprehensive Guidebook
- Marked delegates' applications and interviewed potential delegates for the Conference

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## International Vietnam Model United Nations Conference

*One of the biggest and most prestigious MUN conferences in Vietnam alongside HMUN and VYMUN*

2021, Crisis Director

- 1 of the 4 Crisis Directors of the United Nations Security Council (UNSC) on the topic of the Kashmir conflict for IVMUN 2021
- Participated in the writing of a comprehensive Guidebook
- Marked delegates' applications for the Conference

## Ams Model United Nations Conference

*The annual MUN conference of Hanoi-Amsterdam Model UN Association*

2021, Secretary-General

- Directly managed the following departments: Content, Event, and Media
- Organized 3 committees of the United Nations: The United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Environment Programme (UNEP), and the United Nations Security Council (UNSC)

## Green Ams Robotics Team 6520

*The robotic club of Hanoi-Amsterdam High School for the Gifted and Vietnam's first and only team competing in the FIRST Robotics Competition*

Oct 2021- Current, Member of the Programming and Electronics Division

- Participated weekly training sessions and learned how to wire an FRC Robot as well as program its multiple hardware components using Java
- Participated in the club's Mock event where the club was split into 2 opposing teams who shall then compete in a simulation of an actual FRC game. Helped build the robot by wiring the Robot Control System and programmed the robot to be able to run automatically or manually under the control of a human using an Xbox Controller
- Participated in the Power Up Ams 2022 event. Helped prepare the curriculum and taught Python to 6th-8th grade kids in a 2-week online bootcamp

## Others

*Other participated events, projects and activities*

- Helped build a 20-week curriculum and taught 6th-8th grade students micro:bit programming using Microsoft MakeCode
- Helped rebuild the website of the Vietnam National University (VNU) from a Wordpress website to a PHP Laravel application
- Tutored a 9th-grade student who successfully passed the high school entrance exam and got into Hanoi-Amsterdam High School for the Gifted

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## Projects

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### debaterstoolkit.com

*An application which generates debate motions based on various criteria, calculate break chances for debate tournaments and helps adjudicators do timekeeping for various debate formats.*

- Built the application with ReactJS, Firebase, and Node.js
- Hosted the app on Netlify and added HTTPS to the app with a TLS certificate from Let's Encrypt
- Added offline capabilities to the app by making it a Progressive Web App (PWA) in addition to being an online web-application
- Made the app available on native platforms i.e. Windows (using Electron) and Android (using Ionic and Capacitor)
- Gathered and translated over 7,300 debate motions and translated them into Vietnamese for the Vietnamese Debate Community
- The application has 200 monthly active users

### Proletariat

*An under construction web application that helps high school students find relevant extracurricular activities for their desired college major.*

- Designed the UI using Figma
- Drew the model for the NoSQL MongoDB database of the app
- Building the website's front-end with ReactJS
- The backend for the app is going to be built with ExpressJS, MongoDB and Imgur
- Native capabilities shall be added for Windows (using Electron) and Android (using Ionic and Capacitor)
- The application features spaces which work like subreddits, i.e. users can upload posts on them. In addition, users can also post job/internship offers, opening club positions and recruiting extracurricular projects to relevant spaces. For instance, an offer to join the content department of a programming club might be posted on the space s/ComputerScience.

### IOT Syringe Infusion Pump

- Helped build an IOT Syringe Infusion Pump in a team of 5 for the AI-JAM US 2021 Competition
- This syringe pump allows doctors to set, modify the flow, stop the infusion of the pump over the internet as per patient response. It also keeps track of all the commands used by doctors in a safety log for data inspection if needed.

### IOT Bracelet to assist blind people

- Helped build an IOT Bracelet to assist blind people in a team of 7 for the 45<sup>th</sup> INOVA International Invention Show
- The bracelet uses an ultrasonic distance sensor to detect nearby objects and alerts the wearer about them.
- The device also collects GPS data and heart rate/blood oxygen concentration from the wearer and uploads such data to a cloud server for statistics monitoring.

### IOT stroke-monitoring and alert device

- Helped build an IOT stroke-monitoring and alert device in a team of 6 for the 2021 Advanced Innovation Global Competition (AIGC) hosted in Singapore.
- The bracelet uses an accelerometer and gyroscope sensor to measure the 3D coordinates of the wearer as well as a pulse-oximeter and heart-rate sensor to measure the oxygen level and heart-rate of the wearer.

- The data from the two sensors is displayed onto an OLED Screen and uploaded to an online Blynk server for constant monitoring.
- In the event where a stroke is determined to have happened, the device triggers buzzers into making noises to alert surrounding people as well as sends an SMS text and makes a phone call to a preset phone number using a SIM module to alert that person about the stroke.

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## Awards & Certificates

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### Hanoi Municipal English 9th-grade Olympiad

Second Prize

### Hanoi Model United Nations Mock #12

Outstanding Delegate

### AI-JAM US 2021 Competition

Gold Award

### 2021 INOVA, 45<sup>th</sup> International Invention Show

Gold Award

### Advanced Innovation Global Competition 2021

Gold Award

### Hanoi Municipal English 12th-grade Olympiad

Second Prize

### Udemy

Bash Shell Scripting Tutorial for Beginners:

<https://bit.ly/37NULwV>

### Coursera

Introduction to Bash Shell Scripting:

<https://bit.ly/3uD4vUo>

Python3 Programming Specialization:

<https://bit.ly/2QcQ22A>

This specialization comprises the following courses:

1. Python Basics: <https://bit.ly/33xwVDI>
2. Python Functions, Files and Dictionaries: <https://bit.ly/3exTuOy>
3. Data Collection and Processing with Python: <https://bit.ly/3xVhra6>
4. Python Classes and Inheritance: <https://bit.ly/3tyUmqI>
5. Python Project: pillow, tesseract, and OpenCV: <https://bit.ly/3o5xD3Y>

Python for Everybody Specialization:

<https://bit.ly/3o3srOi>

This specialization comprises the following courses:

1. Programming for Everybody (Getting Started with Python): <https://bit.ly/3f7UF6v>
2. Python Data Structures: <https://bit.ly/33v7kLc>
3. Using Python to Access Web Data: <https://bit.ly/3o54XlX>
4. Using Databases with Python: <https://bit.ly/3uPDYU5>
5. Capstone: Retrieving, Processing, and Visualizing Data with Python: <https://bit.ly/3xWb72h>

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## **Skills**

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### **Programming**

JavaScript, TypeScript, Python, Java, C, Arduino, Bash, PHP

### **Web & Database**

HTML, CSS, Tailwind, Firebase, MongoDB, SQL (PostgreSQL & MySQL), Redis, GraphQL, REST

### **Frameworks**

React, Next.js, Node.js, Express.js, Electron, Ionic (Capacitor)

### **Tech**

Git, Docker, Dokku, SSH, VSCode, Vim, Postman, Insomnia, DataGrip, IntelliJ, PyCharm, CLion, MS Office

### **Languages**

English, Vietnamese