

# NHA DO

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## Education

**University of California, Los Angeles (UCLA)**

**09/2020 – 01/2023 (Expected)**

*Bachelor of Science in Electrical Engineering*

*GPA: 3.631*

Coursework: Digital Signal Processing, Data Science & Machine Learning, Data Structure, Graph Theory, Analog Electronic Circuits, Logic Design of Digital Systems, Probability and Statistics

## Award

**Encouragement Scholarship**

**2013-2014**

*Da Nang University of Science and Technology*

*Da Nang, Vietnam*

## Experience

**UCLA Speech Processing and Auditory Perception Lab**

**06/2021 - 09/2021**

*Undergraduate Research Assistant*

*Los Angeles, California*

- \* Trained an End-to-end model using Automatic Speech Recognition (ASR) with Transformer
- \* Filtered signals and analyzed data
- \* Collaborated and assisted Ph.D student to enhance the accuracy of the model

## Projects

**Plant Pathology - Machine Learning on Embedded System | Python/ C - STM32 H743ZI2**

**In Progress**

- Create a deep learning model to classify diseases in apple trees
- Embed the weights of the pre-trained model into Microcontroller STM32 H743ZI2 board

**Spam Email Classification | Python - Jupyter Notebook**

**2021**

- Built a model to classify an email to be spam or non-spam based on Naive Bayes Theorem
- Extracted words and calculated their probability
- Optimized the model by using Scikit-learn library
- Achieved the accuracy of 97%

**Pooling Filter | Verilog**

**2021**

- Designed and simulated a pooling filter digital circuit
- Reduced the size of an input image while keeping relevant features of the input and discarding irrelevant information
- Read a 512x512 input image from a file, applied the implemented pooling function at each window position for each color channel, then wrote the resulting 256x256 output image

**Line Following Car | MSP 432, C++**

**2020**

- Utilized MSP432 microcontroller to operate a line following car robot to follow designed curved path
- Coded by C++ using MSP432 TI-Launchpad

**Fire Warning Device | Micro-controller 8051, C**

**2016**

- Developed an electronic device using Micro-controller 8051, which can be used in the kitchen to assist user to control some environmental conditions
- Programmed to measure temperature, humidity, gas, current and displayed on a LCD soldered on the circuit and alarm through a speaker when the temperature or gas concentration increases rapidly and passes the threshold

## Technical Skills

**Programming:** Python, C/C++, Matlab, Java, Verilog

**Open-source Framework:** TensorFlow, OpenCV

**Other Tools:** Latex, Adobe Premiere Pro, Adobe Audition

**Languages:** Vietnamese, English