



# NGUYEN ANH BINH

Address : 223A Hoang Dieu 2 Street, Linh Trung Ward, Thu Duc District, HCM City

Mobile phone: (+84) 373746940

Email: anhbinhnguyen27042002@gmail.com

**Linkedin:** <https://www.linkedin.com/in/nguyen-anh-binh-64323a275/>

**Github** : <https://github.com/nguyenanhbinh27042002>

## SUMMARY

As an Embedded System Engineer, I specialize in the intricate fusion of software and hardware, sculpting the silent yet vital core of modern technology. With a meticulous eye for detail and a passion for crafting efficient, reliable code, I thrive in unraveling complex challenges within resource-constrained environments. Collaborative by nature, I seamlessly integrate my work with diverse teams, embracing continuous learning to stay at the forefront of innovation. Committed to ethical and responsible engineering, I approach each project with adaptability, resilience, and a deep sense of purpose, knowing that the solutions I create power the devices that shape our world.

## EDUCATION

Ho Chi Minh University Technology and Education, Bachelor of Mechatronic Engineering

GPA : 3.22 /4.0

## WORK EXPERIENCE

### **Develop Device Driver Enhancements with Kernel Linux ,The HCMUTE University** *Aug 2024 - Present*

- Design and customize Kernel programs into Device Drivers for the purpose of quickly and conveniently using libraries to communicate with Hardware such as Raspberry Pi

- **Responsibility**

- Develop Device Drivers LCD, I2C, SPI, PWM driver, GPIO driver, Timer driver

### **Research, design and manufacture the durian classification system for export** *Jan 2024 - Aug 2024*

#### **Chia market ,The HCMUTE University**

- Research and design a durian classification system based on weight, color and object the durian

- **Responsibility**

- Research and design hardware systems .
  - Image processing programming to identify contours and defects on durian fruits.
  - Programming to operate the system using the Ladder, and C programming language.
  - Training AI model for purpose detect pests in durian fruits

### **Embedded Software Automotive Internship, Bosch Global Software Viet Nam** *Aug 2023 - Feb 2024*

- Embedded System Engineers (HIL Testing) : The EPS (Electronics Power Steering System)

- **Responsibility**

- Analyze requirements from customer in DOORS and using tools from dSPACE to design environments testing.
  - Next, testing and releasing the SW to implement in the EPS (Electronics Power Steering System)

- Role : HIL Tester

- Team size : HIL team and the project in charge : Honda

### **Design the Mechatronics project AGV Robot 3 DOF**

*Step 2023 - Jan 2024*

- Research, design and simulation the Robot ARV for using the monitor in the factory

- **Responsibility**

- Design and Simulation HW of Robot by SOLIDWORKS and MATLAB Simulink tools.
  - Caculate and Design the PID controller to implement SW and control the Robot.

**Embedded Academy Training Course By BOSCH Global Software Viet Nam****Mar 2023 - May 2023**

- Knowledge about Embedded Automotive
  - Automotive and Embedded Device: CAN protocol, SPI, I2C, LIN, Flexray
  - Automotive Hardware basics
  - Testing Processing
  - SW Development Life Cycle
  - Safety and Cyber Security

**Design And Training Model Artificial Intelligence to Application to Machine Vision Field****Mar 2023 - May 2023**

- Design and training model AI for medical and mechanical project
  - Responsibility:
    - Processing Data and Training Model Artificial Intelligence for project diagnostic and detect COVID-19 in Lung by using X-ray image.
    - Identify defective workpiece surfaces

**Design Hardware Components Industrial Robotic in HCMUTE****Aug 2022 - Dec 2022**

- Design, simulation for Industrial Robotic 4 DOF for purpose transport goods
  - Responsibility:
    - Calculation kinetics and design HW components "Robot Scara 3DoF" by AutoCAD,SOLIDWORKS.
    - Design and accustom for electronic boards (PCB) with purpose application for controlling the Robot.

**SKILL**

- Technical Skills:
  - Strong Programming C/C++ and Python
  - Knowledge about Boolean algebra
  - Have knowledge about digital hardware components (AND, OR, XOR, NOT, latches, flipflop)
  - Knowledge Embedded Linux, Embedded Kernel Development
  - Embedded System such as Raspberry Pi, ARM and RTOS
  - Knowledge about AUTOSAR, ISO 26262 Standard
  - Makefile GNU
  - Knowledge of Circuit Design, PCB design and HW components.
- Soft skill
  - Development tools: Visual Studio, Visual Studio Code.
  - Git, Trello, DOORS, JIRA.
  - Design PCB tools : Protues, Eagle, KiCAD.
  - HW component design tools: AutoCAD, SolidWorks and MATLAB simulink
  - Microsoft Office Excel.
  - Being self-driven and Independent
  - Organizational and Time management
  - Adaptability and Patience
  - Teamwork and Collaborative abilities.
- Languages: Intermediate English
- Certifications:
  - Modelling and simulation of mechanical systems
  - Cybersecurity for Everyone
  - Learn Linux Kernel Programming