ANH NHAN CAO

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EDUCATION

University of Montana, USA   2023 - 2025
> *M.Sc. Computer Science*

Vietnam National University - University of Technology (HCMUT)   2017 - 2022
> *B.E. Electronics & Telecommunications Engineering.*

VNU-HCM High School for the Gifted, Viet Nam   2014 - 2027
> *High School Diploma.*

PROFESSIONAL EXPERIENCE

University of Montana, USA   Jan. 2023 - Present
Teaching Assistant - Operating Systems

University of Montana, USA   Jan. 2023 - Present
Research Assistant - Under the supervision of Asst. Prof. Anh Nguyen

Seeing Machines Inc - Melbourne, Australia   Jun. 2022 - Dec.2022
Software Engineer - Remote Contractor - Caterpillar project

- Developed several features on the host microcontroller, which included implementing internal flash storage, human-machine interface (HMI), hardware diagnostic module.
- Implemented and integrated software on the Linux board for self test execution, sensor driver
- Improved the current code base regarding serial communication between host controller and Linux board via UART, legacy code fixes
- Linux board source code migration to update build environment, so helped the team so solve the persistent problem of old fashion build process barrier.
- New hardware bring up

DEK Technologies - Ho Chi Minh City, Viet Nam   Apr. 2022 - Jan. 2023
Embedded Software Engineer - Fovio driver monitoring project

- Defined functional safety requirements for general I/O monitoring, DRAM bitflips monitoring, physical communication error (SPI)
- Implemented software for defined functional safety requirements
- Developed software features based on requirements from customer
- Supported US customer with the release and and fixed reported bugs
- Mentor for new project members
- Updated appendix documents and user guide

Earable Neuroscience - Ho Chi Minh City, Viet Nam   Jan. 2021 - Apr. 2022
Firmware Engineer

- Developed firmware for different hardware components such as digital microphone, external Nand flash, eMMC, hardware logging module, wav player
- Developed applications for wireless communication via Bluetooth low energy
- Implemented signal filtering on microcontroller, ported light weight deep sleep detection algorithm running on PC to microcontroller, this became one of the key features to help Earable raised funds successfully in early 2022
- Developed PC application with Qt and Bleak to simulate mobile app for testing with hardware

- Implemented testing scripts with Python to test hardware operations
- Contributed to the system optimization such as power saving, Bluetooth dual mode operation with Handsfree / A2DP and sensor data (BLE) concurrent streaming
- New hardware bring up
- Updated requirements and designs

Earable Neuroscience - Ho Chi Minh City, Viet Nam   Jul. 2020 - Jan. 2021

Firmware Intern

- Implemented full test cases for device under test
- Dev KITs bring up to select potential hardware components for the next release
- Developed firmware for various biosensors ADS1299-6, IMU, PPG and other peripherals like LED, RTC
- Ported simple machine learning model to microcontroller and validate output

SKILLS

Personal skills	Problem solving, leadership, critical though, creative, communication.
Programming Language	C, C++, Python, bash
Technical knowledge	Embedded systems, RTOS and Linux, IoT, DSP, hardware design