

NICHOLAS Q. BUI

San Jose, CA

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EDUCATION

University of California, Berkeley - Berkeley, CA 2023 - 2027
BS, Electrical Engineering and Computer Science

- Relevant Coursework: Structure and Interpretation of Computer Programs (CS 61A), Data Structures (CS 61B), Designing Information Devices and Systems I/II (EECS 16A/B)
- Clubs/Organizations: Combat Robotics at Berkeley

Independence High School - San Jose, CA 2019 - 2023
HS Diploma, Science Technology Engineering and Mathematics Magnet, Valedictorian

- Relevant Coursework: AP Calculus AB/BC, AP Computer Science Principles, AP Computer Science A, AP Physics C: Mechanics, Principles of Engineering, Introduction to Engineering Design, Aerospace Engineering

SKILLS

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|--------------------|---|
| Software | Java, Python, C++, HTML/CSS, Git, Android Development, Google Firebase |
| Hardware | Microcontrollers, Autodesk Fusion, Circuit Design, Electronics Prototyping, 3D Modeling |
| Soft Skills | Leadership, Accountability, Communication, Time Management |
| Languages | English, Vietnamese, Spanish |

EXPERIENCE

Robotics Engineer, Electrical and Software Subteam Sep 2023 - Present
Combat Robotics at Berkeley Berkeley, CA

- Designing, assembling, and testing the electronics and firmware behind the weapon and drive systems of "Whisk", a 15 lb battle bot the team and I are building for the "Combat Robotics Northern California Championship"
- Assisting mechanical subteam with material selection, hardware manufacturing, 3D modeling, and simulations

SIMR Bioengineering Intern May 2022 - Aug 2022
Stanford University Palo Alto, CA

- Designed, programmed, and prototyped the electronics and firmware for "Apnostics", a biometric sensor system for sleep apnea diagnosis using C++, Arduino BLE, and Autodesk Fusion
- Ran extensive cross-comparison accuracy tests between our sensors and existing biometric sensors, ultimately achieving over 97% sensor accuracy

PROJECTS

ASLens Prototyped a machine learning-based ASL interpretation device using Autodesk Fusion, Raspberry Pi, OpenCV, and Python. Users can form ASL signs and the device uses LSTM neural networks to translate the signs into audible speech. The project won 4th place at the 2023 MESA National Engineering Design Competition.

EmoticaM Developed an accessible, hands-free, digital communication tool using OpenCV and Python to convert hand gestures and facial expressions into corresponding emojis and keyboard characters. The project won 1st place at the 2022 Los Altos Hackathon, qualifying my team and I for Pinnacle 2023, the Olympics of Hackathons.

FinanceLingo Created a beginner-friendly financial education mobile app using Java, Android Studio, and Google Firebase. Users can learn about personal finance through fun and interactive activities while their progress is stored and accessed in real-time through a cloud database. The project was submitted to the 2022 Congressional App Challenge for CA-17 and was awarded the Certificate of Special Congressional Recognition by Rep. Ro Khanna.