# Ethan Nguyen

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# EDUCATION

# University of California, Los Angeles

September 2021 – June 2025

Bachelor of Science in Biophysics, Minor in Data Science Engineering

GPA: 3.99

## EXPERIENCE

#### Research Coordinator

December 2022 – Present

Elegant Mind Collaboration at UCLA

- Developing software to reconstruct stenosis models in 3D using stereo images in the microscopy group
- Presented research findings virtually at the UCLA Undergraduate Research Week to researchers and faculty
- Led a team of researchers in analyzing EEG data to test Dr. Katsushi Arisaka's theory on consciousness's origin
- Provided training to new team members on creating PsychoPy protocols, collecting EEG data, and analyzing data using Matlab, ensuring continuity and knowledge transfer within the team

## **Executive Board Member**

September 2022 – Present

CruX Neurotech Organization at UCLA

- Conducted workshops on neuroscience and machine learning with Python and Colab notebooks
- Led a team of 9 to construct a brain-computer interface that enables context-dependent control of either an electric wheelchair or robotic arm to provide extended movement and object manipulation capabilities for users
- Established GitHub pages on cruxucla.github.io for hosting workshop materials and a wiki

#### Robotics Intern

June 2019 – September 2019

SRI International in Menlo Park

- Streamlined and modernized the robotic surgical Taurus Robot Telemanipulation software by refactoring over 100k+ lines of C++ code, enabling cross-compatibility on both Windows and Linux platforms
- Leveraged GitLab's Continuous Integration to troubleshoot build errors, ensuring smooth software deployment throughout the development cycle
- Conducted thorough code testing through Unreal Engine VR simulations and live robot tests

## Combat Robotics Designer

September 2019 – May 2022

American Society of Mechanical Engineers at UCLA

- Designed Beetleweight combative robots for the annual collegiate SoCal Smackdown tournament using Solidworks for precise 3D modeling
- Collaborated with a team of 5 to brainstorm, manufacture, and assemble our drumbot
- emonstrated practical skills and leadership by driving and operating the robot during competition

# VOLUNTEERING

#### UCLA Health Volunteer

March 2024 – Present

• Volunteering as a floater to guide patients throughout Ronald Reagan UCLA Medical Center

#### IRS Tax Volunteer

September 2021 – May 2022

• Completed the IRS Tax Assistance Certification to provide tax assistance to the elderly, non-English speakers, low-income workers, and those in need in the Los Angeles area.

## Piano Performer Volunteer

September 2021 – June 2021

• Performed improvisational jazz and classical piano weekly at the Assisted Living Unit

## TECHNICAL SKILLS

Languages: C/C++, Python, Java, Matlab, Mathematica, JavaScript, HTML/CSS, R

Developer Tools: Git, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, LLMs

Libraries: Boost C++, C++ 11, numpy, pandas, matplotlib, keras, OpenCV, Tkinter, PsychoPy

Software Skills: Machine Learning, Computer Vision, Socket Programming, Multithreading, Logging

Other Softwares Used: Fiji, Pylon, Unity, Solidworks, Onshape, OpenBCI, EMOTIV Software

Other Skills: 3D-printing, CNC Manufacturing, Laser Cutting, Arduino, Wet Lab/Chemistry Lab Techniques