

# HILLARY NGUYEN

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## EDUCATION

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

Los Angeles, CA

Bachelor's Degree, Computer Science and Linguistics

June 2027

- **Relevant Courses:** Data Structures, Algorithms, Object-oriented Programming, Computer Architecture, Discrete Structures
- **Organizations:** Association for Computing Machinery (ACM), ACM Studio, UCLA Archery, Vietnamese Student Union
- **Skills:** Python, C++, JavaScript, HTML, CSS, Adobe Photoshop, Git, Github, Davinci Resolve, Clip Studio Paint
- **Languages:** English, Vietnamese, Spanish

## EXPERIENCE

### Headstarter AI

Remote

Software Engineering Fellow

July 2024 – September 2024

- Built 3+ apps using NextJS, Firebase, HTML/CSS, and JavaScript gaining experience in web development, and database frameworks.
- Developed the final project from design to deployment leading 5+ software engineering fellows in hackathon.

### Orange Coast MemorialCare Hospital

Fountain Valley, CA

Maternity Ward / Emergency Room Hospitality Desk Greeter

June 2021 – February 2023

- Guided families through the hospital and patient rooms.
- Supported nurses with patient transportation.
- Oversaw phone calls to 5 departments (oncology, ER, telemetry, maternity, surgical) managing patient information.

## PROJECTS

### Pokedex Web Application (HTML, CSS, JavaScript, PokeAPI)

- Developed an interactive Pokedex using HTML, CSS, and Javascript, leveraging open PokeAPI to fetch data and display 151 Pokemon dynamically.
- Devised filtering options to search Pokemon by number and name, interactive UI elements to view individual stats and skills, and responsive design to provide an optimal viewing experience for desktop and mobile devices.

### Roguelike dungeon crawler (C++)

- Programmed a dungeon crawler in C++ controlled through the terminal where players navigate through multi-level maps, battle monsters, and collect weapons and skills to win the game.
- Applied **inheritance** to design 4 unique monsters, 10 game objects, and the player; used **user input handling** to implement player movement, attack, and item interaction using keyboard inputs; utilized **procedural generation** to deploy new levels including 4-6 rooms and corridors with random placement of monsters and items. Completed an inventory system.

### Revision file compressor (C++)

- Formulated a system to optimize data transfer by constructing compact revision files based on old and new data files.
- Utilized C++ **file I/O streams** to read and write large files efficiently and produced an efficient **data compression** algorithm to identify and encode differences between successive versions of inventory files. Reduced data transfer size by up to 35% for cost efficiency.

## LEADERSHIP

### Make-A-Wish, Fountain Valley High School

Fountain Valley, CA

President

May 2022 - June 2023

- Revised the club's 3 board departments through new management and technical training for 9 board officers.
- Facilitated communication between the campus club and the Make-A-Wish parent foundation.
- Fundraised \$7,500 to grant a Make-A-Wish child's wish.

Secretary

May 2021 - June 2022

- Administered bi-monthly volunteering, fundraising, and social events at local festivals, food banks, hospitals, and nature reserves. Managed club records and membership forms. Organized 45 event days during the term.

Publicist

May 2020 - June 2021

- Devised projects to raise \$5,450 through bake sales, running booths at festivals and local events, and designing, producing, and selling merchandise. Coordinated communication between club board officers and club members.

### National Honor Society, Fountain Valley High School

Fountain Valley, CA

Secretary

May 2022 - June 2023

- Directed bi-monthly service projects at nature revivals, soup kitchens, support marathons, and charity marathons. Mentored 10 younger members in organizing projects.