

Jason Ni

916-805-9889 | jasonni4235@icloud.com | <https://www.linkedin.com/in/jason-ni-4b65b022a/> | <https://github.com/jasonni19>

EDUCATION

University of California, Los Angeles

Bachelor of Science in Mathematics of Computation

Expected Graduation: 2027

- Current GPA: **3.78/4.0**
- Relevant Coursework: **Object Oriented C++ Programming, Data Structures and Algorithms, Computer Organization, Machine Learning, Multivariate Differential and Integral Calculus, Linear Algebra, Differential Equations**

TECHNICAL SKILLS

Languages: C, C++, Python, Java, Javascript, HTML, CSS, x86 Assembly

Technologies/Frameworks: Pytorch, Matplotlib, Pandas, Requests, Emacs, Pygame, CNN, Github, Terminal/Linux, VS Code, Tableau, DaVinci Resolve Video Editor, Olive Video Editor, Blender, Audacity, Google/Microsoft Spreadsheets

PROJECTS

Website Carbon Emissions Analyzer | *Python*

December 2023

- Utilized open source API, matplotlib, regex expressions to display statistics demonstrating the impact that a particular website can have on energy usage and carbon emissions on each page load.
- Provided users the option to input the url of a website of their choice, and the program returns the statistics for energy usage, carbon emissions, and more.

Bruintour | *C++*

February 2024

- Leveraged thousands of Open Street Map geospatial data and a list of points of interest for a given area.
- Utilized hashmaps and A* algorithm search to generate navigation instructions for the shortest route to a certain destination
- Implemented instructions that provide short informational talks about each landmark passed on the route, and navigating to the next destination.

Marble Madness | *C++*

March 2024

- Programmed a web game where the objective for a player was to collect blue crystals scattered throughout each maze while avoiding hazards like marbles, pits, and enemy robots
- Immense usage of C++ Object Oriented Programming with 2000+ lines of code written.

Virus Hunter | *Python*

April 2024

- Worked in a team to develop a game that informs players about certain pathogens and how the body's immune system combats them.
- Utilized Pygame to implement player actions and scoring system for the game
- Designed the game's GUI along with informational components throughout the game that informs players on accurate medical information regarding pathogens

EXPERIENCE

UCLA Computational Machine Learning Lab

March 2024 - present

Undergraduate Research Assistant

- Developing algorithms to shrink model size and improve prediction speed for machine learning models, such as deep neural networks, latent factor models (e.g., matrix factorization), extreme classification and kernel machines.
- Collaborating with lab members to implement and test different approaches, optimizing for both computational efficiency and predictive performance

UCLA ACM AI

September 2023 - present

Member

- Attends club meetings regularly to expand knowledge and get hands-on experience with machine learning topics such as linear neural networks for regression, convolutional neural networks, and machine learning training loops

ORHS Coding Club

August 2022 - May 2023

President

- Founded and led largest coding instruction club in high school with about 30 students, hosting weekly meetings and coding sessions
- Coordinated with student tutors to develop a Java curriculum for middle school students, along with organizing the time and locations of lessons

Kumon

June 2022 - March 2023

Center Assistant

- Graded students' homework and assessments, maintained comprehensive records of their academic progress, and offered insightful hints to facilitate their learning process
- Promptly responded to customer inquiries and delivered regular updates to parents, employing effective communication strategies