

Nona Nersisyan

Los Angeles, CA nonanersisyan03@gmail.com 818-635-0011
[linkedin.com/in/nona-nersisyan](https://www.linkedin.com/in/nona-nersisyan) github.com/nnersisy [Research](#)

EDUCATION

University of Southern California, Viterbi School of Engineering

January 2022-December 2024

Undergraduate Student - Bachelor of Science in Computer Science

Relevant Coursework: Data Structures and Object-Oriented Design, Programming Graphical User Interfaces, Discrete Methods in CS, Introduction to Programming, Fundamentals of Computation

EXPERIENCE

USC Information Sciences Institute | Cloud/Edge Computing Intern

June 2022-July 2022

- Created and executed a streamlined experimental process utilizing **edge and cloud computing** to classify lake zooplankton and infer knowledge of surrounding ecosystem health.
- Utilized Chameleon Cloud Site, Pegasus Workflow Management System, and HTCondor to improve performance of **data processing** and **workflow execution**.
- Built a workflow to identify **26** types of zooplankton, which could take more time and effort if done manually and potential for future applications in data analysis and classification for other ecological studies.

CI-Compass | Cyberinfrastructure Analyst Intern

January 2022-May 2022

- Examined real-world **cyberinfrastructure** challenges in major facilities of NSF.
- Inspected cyberinfrastructure **computing systems**, **data storage systems**, advanced instruments, data repositories, and visualization environments, all linked together by **software** and high-performance networks to improve research productivity and enable breakthroughs.

PROJECTS

Amazon Mock | C++

- Read a database of products and users from a text file, and allowed users to interactively search for products based on keywords in addition to building an **index mapping** keywords to products that match **search**
- Accomplished ability for users to add items to a cart/purchase and maintained cart in **FIFO order**

ChromaKey | C++

- Performed a green-screen operation by leveraging 2D arrays and an algorithm to detect foreground of input image, and replace it with new background image pixels

Maze Solver | C++

- Programmed a maze solver by leveraging provided text and finding **shortest path** from start to finish operating a **breadth-first search algorithm** in addition to a queue data structure to store all possible paths.
- Executed **dynamic memory** allocation of arrays when storing arrays/2D arrays, and operated structs/classes.

Streaming | C++

- Applied **inheritance/polymorphism**, ifstream/stringstream/getline() along with operator>> to perform parsing using different formats and handling with streaming services.
- Constructed a **custom parser algorithm** to suggest users new movies based on intersection of other users' streamed content in addition to operating exceptions to handle errors.

Bizbeeb | Omnifood | HTML, CSS, JS, Java

- Created and optimized two web pages to promote businesses by leveraging fixed background images, fade when hovered over buttons, size-changing navigation tab, linked images to business' sites, and favicon.
- Implemented features such as images changing and **fading** as website is scrolled through, and images **enlarging** when hovered over in order to make site more captivating to user

TECHNICAL SKILLS

Languages: C++, Java, Python, Javascript, HTML/CSS, Dart, Kotlin

Tools/Frameworks: Git, Flutter, ReactJS, Pandas, PyTorch, NodeJS