

Zhean Ganituen, or known as “Obi”, is a Computer Science student at De La Salle University with the Class of 2027. Before his undergraduate studies, he was a senior high school student conducting a thesis that was published, received distinctions, and was presented to other students and faculty. He also joined organizations which advanced his studies in programming and engineering. Currently, his work now focuses on computer graphics, actively seeking the combination of it with interactive entertainment and human-computer interaction.

>> EDUCATION

DE LA SALLE UNIVERSITY, COLLEGE OF COMPUTER STUDIES

Manila, Philippines.

[est. 2027] B.S. in Computer Science, Major in Software Technology, Minor in Philosophy.

- Relevant Coursework:
 - *Programming with Structured Data Types.*
 - *Discrete Structures.*
 - *Differential Calculus.*
 - *Linear Algebra for Computer Science Students*
- Expected Coursework:
 - 3D Computer Graphics Modelling.
 - Game Design.
 - Computational Interaction Design
 - Augmented and Virtual Reality.

DE LA SALLE UNIVERSITY, INTEGRATED SCHOOL

Manila, Philippines.

[2023] STEM Senior High School Diploma.

- Advisers: Dr. Neil Stephen Lopez and Dr. Jose Bienvenido Biona.
- Thesis: *Traditional and Modernized Jeepneys: An Assessment on Comfort, Ease of Use, and Safety.*
- Received distinction in research. Thesis published as part of the University's 2023 SHS Research Congress.
- Was the Director and Research Head of a class project that helped and assisted dairy farmers from General Trias Dairy Raisers Mutipurpose Cooperative to collaborate with the Department of Science and Technology of the Philippines for their milk pulverizing project.

MOOCs

- *CS50: Introduction to Computer Science.* Harvard University, through edX.
- *Viruses & How to Beat Them: Cells, Immunity, Vaccines.* Tel Aviv University, through edX.

>> SKILLS

Spoken Languages:

- (native) Filipino and English.

Programming:

- (proficient) C, Python, and GDScript.
- (intermediate) MATLAB.
- (basic) Java and JavaScript.

Software and Tools:

- (proficient) Blender, Godot, Inkscape, Git, Visual Studio Code, Jupyter.
- (intermediate) Microsoft Excel, Web Development (HTML and CSS).
- (basic) Vim, Python Data Science (NumPy, Pandas, etc.), OpenGL, Fusion360, Unity.

Research:

- Data Analysis: graphical analysis, hypothesis testing, descriptive statistics, and qualitative analysis.
- Research Tools: Mendeley, online databases, Obsidian.

>> EXPERIENCE

DE LA SALLE UNIVERSITY, COLLEGE OF COMPUTER STUDIES

Manila, Philippines.

Science Writer

- Writing technical documentation and reports for the College to communicate technical and scientific information for students, faculty, and external communications.
- Writing publication materials to disseminate proceedings within the College to external communications.

>> PUBLISHED RESEARCH

[1] Ganituen, et al. (2023). Traditional and Modernized Jeepneys: An Assessment on Comfort, Ease of Use, and Safety. Available (soon) on AnimoRepository.

- Analyzed 300 heart rate datasets from 30 participants using statistical methodologies (descriptive statistics, hypothesis testing).
- Resulted in a baseline study aimed to enhance the quality of transportation in the Philippines.
- Collaborated with a diverse team to integrate multiple perspectives into the research, enriching the depth and effectiveness of the study.
- Led and coordinated a cohesive team effort for the senior high school thesis project, steering the project towards successful completion.
- Incorporated diverse insights from external collaborators to enhance the research project's effectiveness and depth.
- Produced comprehensive technical documentation and presentation materials for research, ensuring accessibility without compromising accuracy.
- Crafted clear and understandable documentation and presentations for various audiences, including advisers, participants, and external students.

>> PROJECTS

The Land is Flat // *video game (in-development)*

- Creating and designing 2D and 3D walking simulator.
- Writing a deep and compelling philosophical story of nature, society, and existence.
- Creating immersive video game models and environments limited by the 2D space and "math art" theme of the game.

Mini Champs // *video game (in-development)*

- Creating and designing a MOBA and tower-defense hybrid game that focuses on casual and mechanical skill expression.
- Modelling low-poly characters to make the game have low system requirements yet immersive and timely looking.
- Using artificial intelligence to make enemy pathing and ally targeting more realistic.
- Creating intense, complex, and immersive gameplay through designing complex game loops, features, strategies, and characters.

Jeopardy Game // *video game*

- Wrote a Jeopardy-like command line interface game for a school project.
- Used C and heavily used pointers and functions for the game loop.
- Heavily used the string library of C for answer verification.

- Used C header files so that players can freely and easily change the questions and the answers to the game.

Obi // personal website

- Designed and developed an avant-garde yet accessible website to serve as my personal website, code, and 3D portfolio.
- Created to also investigate the usability and accessibility of avant-garde web design and how to execute it effectively, where the visual complexity and weirdness are maintained yet accessible to all.

Eerie Familiarity // 3D and design project

- Conducted research on the nature of liminal spaces and digital recreations of it.
- Forced liminal space aesthetics in urban and busy areas through lighting and camera effects.
- Created and designed 3D computer-generated rooms and areas to create liminal spaces through lighting and camera effects.

Collatzer // code project

- Created a python script that allows a user to view the entire Collatz process of a user-input value for x.
- Used file handling and mark-up languages to save the file as a portable file.
- Used pip and the Python Package Index to also turn it into a Python package.
- Created useful functions for viewing the Collatz process.

Epytoml // code project

- Created a python program that makes people write notes in Python.
- Used file handling techniques for viewing the file in Tkinter and exporting the file as a portable file.
- Has numerous sub-packages that can be used by the user to create specialized tasks.
 - Such as grabbing the most used words in a text file and creating a shortcut for it to make typing repetitive words easier.
 - Formatting, highlighting, and annotating text.
- Used regular expressions to improve its capabilities.
- Used pip and the Python Package Index to turn it into a Python package available for everybody to use and edit to their needs.

>> TALKS//PRESENTATIONS

- [1] *De La Salle University Mechanical Engineering Department Symposium*. Online, July 6, 2023. Presented my thesis project to >100 attendees from Philippine Science High School and De La Salle University.
- [2] *De La Salle University 2023 Senior High School Research Congress*. Online, June 27, 2023. Presented my thesis project to >500 attendees from De La Salle University and outside schools.

>> MEMBERSHIP//INVOLVEMENT

- [1] De La Salle University Association of Computing Machinery (ACM) Student Chapter. Since October 2023.
 - Attending numerous talks, discussions, and meetings on computer science research and innovations.
 - Collaborating and brainstorming with other student researchers on research topics and discussions.
 - Communicating my research goals and interests with other student researchers.
- [2] La Salle Computer Society. Since October 2023.
- [3] Samahan ng mga Lasalyanong Pilosopo. Since October 2023.
- [4] Writers' Guild. Since October 2023.
 - Attending numerous lectures and events on fiction and creative nonfiction.
 - Creating short creative nonfiction pieces to be published by the organization.
- [5] Engineering and Robotics Club. September 2022 to July 2023.
 - Attended classes and workshops on Arduino programming, robotics, circuits, and computer aided design.

- Was a member of the Review Committee which gave out hand-outs and review notes to other members.
 - Wrote review notes for Analytic Geometry and College Algebra.
- [6] Competitive Computer Programmers, Junior Competitive Programming League. September 2021 to July 2023.
- Attended classes and lectures on advanced and competitive programming in C.
 - Competed in programming competitions with teammates.
 - Studied competitive programming techniques with teammates.