Shihang Wei

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EDUCATION

New York University — New York, U.S.

B.S. in Computer Science; GPA: 3.91/4.00 — *Aug 2022 – May 2026*

Minor in Mathematics

Relevant coursework: Object Oriented Programming, Data Structure and Algorithm, Discrete Math, Linear Algebra, Multivariable Calculus, Machine Learning Specialization

SKILLS

Languages: C/C++, Python, JavaScript, Swift

Technologies: Git, Pytorch, TensorFlow, Matplotlib, Scikit-Learn, NumPy, Pandas

PROJECTS

Video Semantic Search
- Identified the absence of effective open-source video search methods using text inputs, which makes video editing costly and time-consuming.
- Developed an algorithm integrating OpenCLIP and K-means clustering to efficiently search through a large video database and retrieve videos most relevant to the given text input. Achieved a 90% accuracy rate in retrieving the most related videos during the evaluation phase.

iOS Application | *GitHub*
- Developed an iOS application using Swift and Firebase, enabling users to share photos, comments, and emojis.
- Enabled push notifications and seamless data sharing through Firebase Cloud Functions and Firestore database, enhancing user engagement and app functionality.
- Implemented a widget that auto-refreshes upon app launch and every 15 minutes while running in the background.

EXPERIENCE

NYU AI4CE Lab — New York, U.S.

Undergraduate Research Assistant — *May 2024 – Present, Full-time*
- Collaborated with PhD researchers to integrate 3D Gaussian Splatting (3DGS) technique into visual place recognition systems. Constructed 3D gaussians representation of the image database using Colmap-free 3DGS.
- Successfully reconfigured and optimized the code of the CF-3DGS to ensure compatibility with our dataset.

NYU Object Oriented Programming — New York, U.S.

Teaching Assistant — *Jan 2024 – Present, Part-time*
- Lead weekly laboratory sessions with 20-30 students, enhanced their technical abilities in CS-UY 2124 Object-Oriented Programming using C++.
- Held weekly office hours for explaining essential concepts and evaluate weekly homework and lab tasks, delivering helpful feedback.

NYU Student Hall Council — New York, U.S.

President — *Sep 2023 – June 2024, Part-time*
- Held executive meetings for council directors in two halls and lead discussions in event and advocacy committees.
- Held bi-weekly General Assembly meetings for floor representatives and Residental Assistants. Lead students to create welcoming and inclusive events and take in advice and resolve residental issues for students.

AWARDS & ACHIEVEMENTS

NYU Inter-Residence Hall Council, Advocacy Committee Award: Awarded to individual with outstanding contribution in IRHC Advocacy Committee (2023)

NYU Tandon Dean's List: Awarded to matriculated undergraduates that achieve a term GPA of 3.4 or higher in each term (2022 − 2024)